

VIA EFS

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Reexamination of:

Dennison et al.

Patent No.: 7,289,763

Group Art Unit No.: Not Yet Assigned

Issue Date: October 30, 2007

Examiner: Not Yet Assigned

Title: CELLULAR TELEPHONE SYSTEM
THAT USES POSITION OF A MOBILE
UNIT TO MAKE CALL MANAGEMENT
DECISIONS

DETAILED REQUEST FOR *INTER PARTES* REEXAMINATION

TABLE OF CONTENTS

	Page
INTRODUCTORY COMMENTS	1
<u>PART 1</u>	
I. IDENTIFICATION OF CLAIMS FOR WHICH REEXAMINATION IS REQUESTED	7
II. SUMMARY OF THE '763 PATENT	7
A. Brief Overview Of The '763 Patent	7
B. The Prosecution History Of The Dennison Patent Family	11
C. The Original Examination Of The '763 Patent	15
D. The Previous Reexamination Of The '763 Patent.....	18
E. The Co-Pending Litigations Of The '763 Patent.....	20
<u>PART 2</u>	
I. CLAIM CONSTRUCTION.....	23
A. “Responsive To An Inaccuracy”.....	23
B. “Exact Geographic Location”	24
C. “A Positioning System”	25
D. “Subsequent Services”	25
E. “Location-Based Service”.....	26
F. “Triangulation”	26
G. Claim 29.....	27
H. Claim 31.....	28
<u>PART 3</u>	
I. RAPOPORT.....	30
A. Brief Overview Of Rapoport (EP 0242099 A2)	30
B. Substantial New Questions Of Patentability Based On Rapoport	32
C. Detailed Proposed Rejections Based On Rapoport.....	34
II. GRAY	36
A. Brief Overview Of Gray (U.S. Patent No. 5,003,317).....	36
B. Substantial New Questions Of Patentability Based On Gray	37
C. Detailed Proposed Rejections Based On Gray.....	39

TABLE OF CONTENTS
(continued)

	Page
III. DENEKAMP	39
A. Brief Overview Of Denekamp (U.S. Patent No. 4,750,197)	39
B. Substantial New Questions Of Patentability Based On Denekamp.....	41
C. Detailed Proposed Rejections Based On Denekamp	43
 PART 4	
I. THE REQUESTED CLAIMS OF THE '763 PATENT ARE ENTITLED, AT MOST, TO THE FILING DATE OF THE 1996 CIP APPLICATION	45
A. Claims 1-6 Claim New Matter That Was Added In The 1996 CIP Application And Are Entitled, At Most, To The 1996 Filing Date	45
B. Claims 9-15 And 23-32 Also Encompass Matter Added In The 1996 CIP Application And Are Entitled, At Most, To The 1996 Filing Date	47
II. RICHARDSON.....	55
A. Brief Overview Of Richardson (GB 2,271,486 A).....	55
B. Substantial New Questions Of Patentability Based On Richardson.....	57
C. Brief Overview Of Karouby (U.S. Patent No. 5,373,298).....	59
D. Substantial New Questions Of Patentability Based On Richardson In View Of Karouby	60
E. Detailed Proposed Rejections Based On Richardson As Well As Richardson And Karouby	61
III. STILP	61
A. Brief Overview Of Stilp (U.S. Patent No. 5,327,114)	61
B. Substantial New Questions Of Patentability Based On Stilp.....	63
C. Detailed Proposed Rejections Based On Stilp	66
IV. MANSELL.....	66
A. Brief Overview Of Mansell (U.S. Patent No. 5,223,844).....	66
B. Substantial New Questions Of Patentability Based On Mansell	67
C. Detailed Proposed Rejections Based On Mansell.....	69
V. SALIMANDO.....	69
A. Brief Overview Of Salimando (U.S. Patent No. 5,561,704).....	69
B. Substantial New Questions Of Patentability Based On Salimando	70
C. Detailed Proposed Rejections Based On Salimando	72

TABLE OF CONTENTS
(continued)

	Page
PART 5	
I. CERTIFICATION AND STATEMENT PURSUANT TO 37 C.F.R. § 1.915.....	74
II. CONCLUSION.....	74

INTRODUCTORY COMMENTS

Cellco Partnership (d/b/a Verizon Wireless) (“the Requester”) requests reexamination of claims 1-6, 9-15 and 19-32 (“the requested claims”) of U.S. Patent No. 7,289,763 B2 (“the '763 Patent”) under 35 U.S.C. §§ 311-318 and 37 C.F.R. § 1.903 *et seq.* The '763 Patent issued on October 30, 2007 to Everett Dennison et al. (“the Applicants”). The '763 Patent is currently assigned to EMSAT Advanced Geo-Location Technology, LLC (“the Patent Owner”).

The '763 Patent relates to a purported improvement over a conventional cellular telephone system. In such a system, call management decisions are based on signal strength between a mobile unit and a cell site. The '763 Patent discloses a system that tracks the exact geographic location of the mobile unit via, *e.g.*, GPS, and then connects the mobile unit to the appropriate cell site based on the unit’s location. (*See, e.g.*, Abstract of the '763 Patent.)

Requested claims 1-6 are directed to a system for updating the location of a mobile unit. Requested claims 9-15 and 19-22 are directed to forwarding the exact geographic location and ID of the mobile unit for “subsequent services,” such as emergency services. Claims 23-32 are directed to providing a location-based service.

During the original examination, the Examiner identified the limitations that imparted patentability to the requested claims:

- For claims 1-6, “an updating system responsive to an inaccuracy in the geographic location associated with a mobile unit identification number that exceeds an interval defined by said updating system”;
- For claims 9-15 and 19-22, “a positioning system obtaining a position for said specific mobile unit identifying an exact geographic location of the specific

mobile unit, and forwarding said exact geographic location and specific mobile unit identification for use in subsequent services”; and

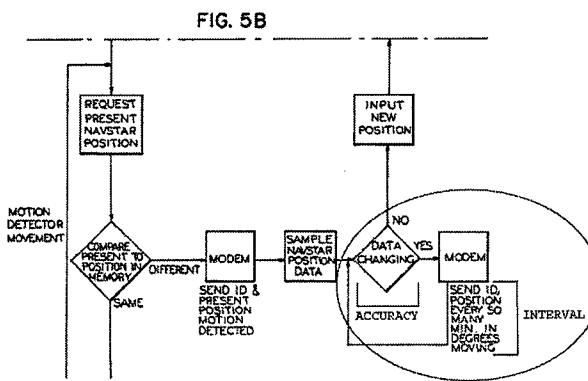
- For claims 23-32, the steps of “acquiring positional data corresponding to an exact geographic location for the mobile unit via the cellular communication system,” “comparing the positional data with stored geographic data for the location-based service,” and “responding to the request for a location-based service based on the comparison.”

The Requester is aware of at least three “non-intervening” prior art references – *i.e.*, published before the 1991 filing date to which the Patent Owner claims priority – that teach one or more limitations believed to be missing from the art of the original examination. None of these references was considered in the original examination and, thus, raise substantial new questions of patentability.

For example, EP 0242099 A2 to Rapoport (“Rapoport”) discloses a vehicle, *i.e.*, a mobile unit, equipped with an apparatus having a GPS transceiver for determining position and a cellular transceiver for communication. (*See, e.g.*, Fig. 1.) Upon a disturbance, such as a window break of the vehicle, the apparatus forwards position information and ID via its cellular transceiver to a central dispatch station. (*See, e.g.*, Abstract.) The acquired position data is compared to stored geographic data in a mapping program by the central dispatch office. Based on this comparison, the central dispatch office dispatches an emergency vehicle to the vehicle’s location or disables the vehicle at its location. (6:24-28; 3:9-10; 5:21-24.) In short, Rapoport discloses a mobile unit forwarding location information and ID for emergency services, along with a central dispatch station acquiring the location information, comparing it to stored location

information, and responding to the request – the *very* limitations found missing with respect to independent claims 9 and 23.

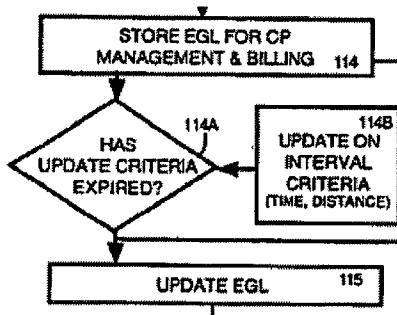
Rapoport also teaches the limitation that imparted patentability to independent claim 1: “an updating system responsive to an inaccuracy in the geographic location associated with a mobile unit identification number that exceeds an interval defined by said updating system.” As shown at the top left of Fig. 5B (below), the vehicle’s present position is checked against the stored position in the vehicle’s memory. If the positions are different, the vehicle is moving and the system enters an accuracy check procedure (circled and marked below by the Requester):



Specifically, the system checks whether the position data is “changing” as shown, *i.e.*, whether the previously obtained position information is inaccurate due to the movement of the vehicle. If the previously obtained position is inaccurate, new position information and ID are sent to the central dispatch office after an interval is exceeded (“Send ID, Position, Every So Many Min.”), thereby meeting the above limitation of claim 1.

The two other non-intervening references –U.S. Patent No. 5,003,317 to Gray et al. (“Gray”) and U.S. Patent No. 4,750,197 to Denekamp et al. (“Denekamp”) – similarly teach the very limitations that were deemed to be missing in the prior art for one or more of the requested claims, and these references were similarly not considered during the original examination. Had they been, the current scope of the requested claims could not have been maintained.

The prosecution history of the '763 Patent is also important for establishing the proper effective filing date of the requested claims. The history establishes an initial 1991 parent application that was later followed by a 1996 CIP application. The '763 Patent was subsequently filed as a divisional of a continuation of the 1996 CIP application. The 1996 CIP application added significant new disclosure, particularly relating to updating based on an interval criteria and performing emergency services. For example, in 1996, the Applicants added Fig. 8, including the portion shown below, to disclose updating based on the interval criteria of time or distance (114A/114B); then, the Applicants expressly claimed updating based on exceeding an interval as set forth above in claim 1. It is axiomatic that a claim directed to the new matter of a CIP application is entitled, at most, to the filing date of the CIP application. (*See, e.g.*, M.P.E.P. § 201.11(I)(B).)



Thus, this Request presents four primary “intervening” references with prior art dates after 1991 – GB 2,271,486 A to Richardson (“Richardson”), U.S. Patent No. 5,327,144 to Stilp et al. (“Stilp”), U.S. Patent No. 5,223,844 to Mansell et al. (“Mansell”) and U.S. Patent No. 5,561,704 to Salimando (“Salimando”). These references were not discussed or used to reject any of the requested claims during the original examination and, thus, also raise substantial new questions of patentability.

Accordingly, the Requester respectfully requests that an order for reexamination be issued in view of this Request for the requested claims based on both the non-intervening and intervening references.

Before proceeding, it should be noted that this Request is organized into five parts. Part 1 identifies the requested claims and summarizes the '763 Patent, its prosecution history, and co-pending litigations. Part 2 addresses the claim construction of certain key terms. Part 3 is directed to the non-intervening references; each such reference is summarized, a list of substantial new questions of patentability is set forth, and a detailed explanation applying the non-intervening art to the requested claims is provided (in the form of incorporated claim charts). Part 4 is directed to the intervening references; it follows the same structure as Part 3 with the addition of a section establishing that the requested claims are not entitled to the 1991 priority date. Finally, Part 5 provides the requisite statement and certification, along with the conclusion.

PART 1

I. IDENTIFICATION OF CLAIMS FOR WHICH REEXAMINATION IS REQUESTED

The Requester respectfully requests reexamination of claims 1-6, 9-15 and 19-32 of the '763 Patent (Exh. 1).¹

II. SUMMARY OF THE '763 PATENT

A. Brief Overview Of The '763 Patent

The '763 Patent relates to a cellular telephone system in which call management decisions are based on the geographic location of a mobile unit. In describing the purported improvement over a conventional cellular telephone system, the Applicants first make several admissions relating to the operation of the conventional system. Four of these admissions are material to the present Request (and are referenced herein as “the Admitted Prior Art”).

1. The Admitted Prior Art

First, the Applicants admit that a conventional cellular telephone system includes a network employing a plurality of cell sites (*e.g.*, network antennas) and a plurality of mobile units. For example, the '763 Patent notes that a “typical CMR [cellular mobile radio] system includes a multiplicity of cells” and that the “cells are set up to carry signals to and from mobile units in the range of the cell.” (1:64-2:4.) A “typical” CMR system is illustrated in Fig. 1 (below) of the '763 Patent. This figure – labeled as “Prior Art” in the '763 Patent – shows a conventional system with a mobile unit M (a vehicle) having a handset 4 and a transceiver 8 connected to an antenna 10 via duplexer 15.² The unit communicates via radio frequency with a base antenna 16 of cell site 14.

¹ The exhibits referenced in this Request can be found in the “Exhibits Accompanying Detailed Request For *Inter Partes* Reexamination” filed concurrently with this Request.

² This description of conventional elements is consistent with the prior art. (*See, e.g.*, U.S. Patent No. 5,153,836 to Fraughton et al. (disclosing a conventional duplexer) (Exh. 2); U.S. Patent No. 5,280,636 to Kelley et al. (disclosing a conventional multi-band antenna) (Exh. 3).)

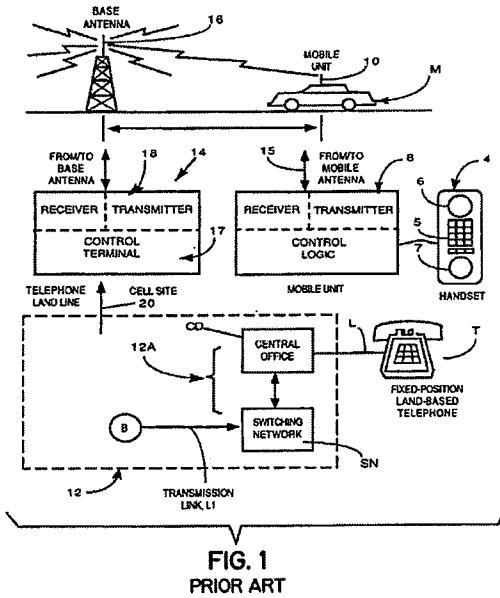


FIG. 1
PRIOR ART

Second, the Applicants admit that a mobile unit stores a “unique mobile identification number” for establishing communication:

[A] typical cellular telephone unit having a unique mobile identification number stored in a suitable location such as an electrically erasable programmable read-only memory . . . [is] known to those skilled in this art[.] (2:18-23.)

Third, according to the Applicants, it was conventional to establish communication between the cellular communication network and the mobile unit via a cell site based on signal strength. This is depicted as “Prior Art” in Fig. 2 of the '763 Patent. The first two blocks of Fig. 2 describe that the idle mobile unit scans overhead messages to determine “what cell signal is strongest” and then “locks” onto that cell.

Fourth, the Applicants admit the use of GPS satellites to determine a highly accurate position of a mobile unit. This admission was made in U.S. Patent No. 5,235,633 (“the '633 Patent”; Exh. 4), the ultimate parent of the '763 Patent, and then carried over to the '763 Patent by virtue of the '763 Patent’s incorporation of the '633 Patent. (See '763 Patent, at 1:17-21.) Specifically, the '633 Patent admits that GPS was described in a prior art 1986 textbook:

A full discussion of the GPS is presented in textbooks, such as "Handbook of Modern Electronics and Electrical Engineering," edited by Charles Belove and published in 1986 by Wiley-Interscience (see chapter 54 thereof, the disclosure of which is incorporated herein by reference)[.] ('633 Patent, at 3:50-55 (emphasis added).)

This constitutes an unequivocal admission that GPS was well-known as of 1986. Moreover, Chapter 54 of the Belove textbook, which the '633 Patent incorporates, discloses that GPS was used to obtain the position of a mobile unit as of 1986:

The NAVSTAR global positioning system, or GPS, is a system employing ultimately 18 satellites in 12-hour orbits of 55° inclination GPS uses simultaneous or near-simultaneous reception of signals from four satellites to compute three coordinates of position and one of time difference GPS provides the capability to "track" vehicles characterized by high-dynamic maneuvering. (Belove, at 54.7:1978 (Exh. 5).)

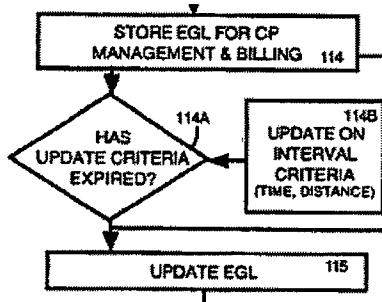
Thus, the prior art use of GPS for obtaining position information was admitted in the '633 Patent, and this admission was then carried over to the '763 Patent through its express incorporation of the '633 Patent.³

2. The Purported Improvement

The Applicants of the '763 Patent utilize these four admissions to define the purported improvement over the conventional cellular system. Specifically, the Applicants explain that while *prior* call management decisions were based on signal strength between a mobile unit having an ID and a cell site in a network, the '763 Patent discloses an improved hand-off system that tracks the exact geographic location of the mobile unit via, e.g., GPS, and connects the mobile unit to the appropriate cell site based on the exact geographic location as opposed to signal strength. (*See, e.g.*, Abstract of the '763 Patent.)

³ The above-quoted statement in the '633 Patent also constitutes an admission on its own, irrespective of the incorporation by the '763 Patent. It is a statement in a parent of the '763 Patent as to the scope and content of the prior art. (*See M.P.E.P. § 2618(III).*)

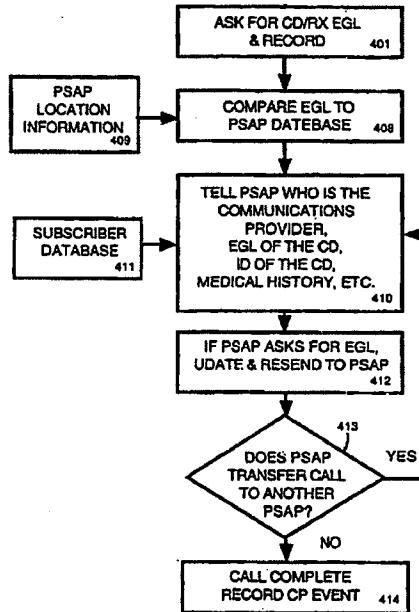
The requested claims are directed toward the mobile unit's location or employing its location in different applications. Claims 1-6 are directed to a system for updating the location of a mobile unit. The '763 Patent describes that the exact geographic location ("EGL") can be updated by exceeding an interval as shown at 114A/114B in a portion of Fig. 8 (below):



The interval criteria 114B can be based on time, distance, *etc.*:

The intervals at which the updating occurs can be determined on a preset time, such as every minute, or can be determined according to distance traveled by the mobile unit, such as every twenty miles, or the interval can be set according to the nearest border so that the mobile unit will be monitored whenever it reaches a location that would cross over the border if the mobile unit traveled toward that border. (13:10-17.)

Requested claims 9-15 and 19-22 are directed to forwarding the exact geographic location of the mobile unit for subsequent services, while claims 23-32 are directed to providing a location-based service. For example, a portion of Fig. 9B (below) illustrates providing emergency services based on the location of the mobile unit. Specifically, the system determines if the call is a 911 emergency call. If so, the system at block 407 obtains the location of the mobile unit and, at blocks 408 and 409, that location is compared to a PSAP (public safety answering point) database. The system then routes the emergency call to the proper PSAP so that emergency services can be provided. (12:30-35.) In addition, the location and ID of the mobile unit are forwarded to the PSAP at block 410.

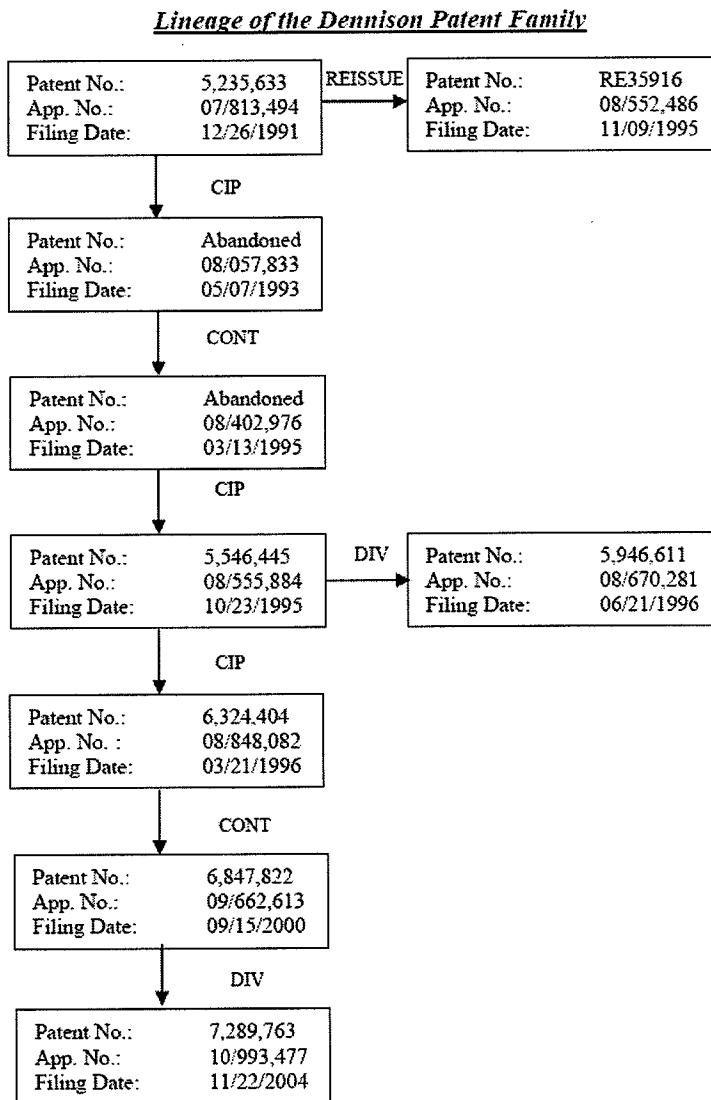


B. The Prosecution History Of The Dennison Patent Family

The '763 Patent to Dennison et al. issued in 2007 from a chain of applications going back 16 years. The Dennison Patent Family began with the filing of a 1991 application that had a narrowly drawn specification. By 1996, the Applicants recognized the limits of the original specification and signaled their intention to expand it by filing a CIP application. These two poles – a narrowly drawn 1991 application and an expanded 1996 CIP application – are critical in determining the priority date of the requested claims. As discussed in Part 4, the requested claims either are directed to the matter added in the 1996 CIP application or are so broad that their scope can only be supported and enabled, if at all, by the expanded 1996 CIP application – either way, they are *not* entitled to the claimed 1991 priority date.

1. The 1991 Parent Application

The Dennison Patent Family began with the filing of App. No. 07/813,494, on December 26, 1991 (referenced herein as “the 1991 Parent Application” or “the Parent Application” (Exh. 6)). This is shown at the top left of the below lineage:



[**KEY:** **CONT** = continuation; **CIP** = continuation-in-part; **DIV** = divisional]

As illustrated above, the 1991 Parent Application issued as the '633 Patent and later reissued as U.S. Patent No. RE 35,916. The first four applications in the Dennison Patent Family that were filed after the 1991 Parent Application (*i.e.*, the first CIP application (Ap-p. No. 08/057,833); the continuation application (App. No. 08/402,976); the second CIP application (App. No. 08/555,884), which issued as U.S. Patent No. 5,546,445 ("the '445 Patent"); and the divisional application to the '445 Patent (App. No. 08/670,281) that issued as U.S. Patent No. 5,946,611 ("the '611 Patent")) essentially contained the same specification.

2. The 1996 CIP Application

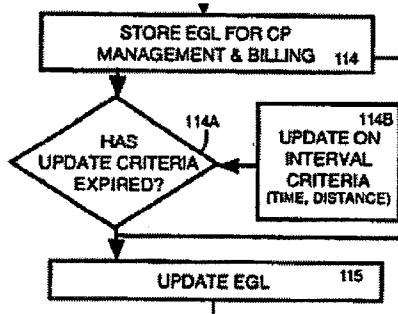
By 1996, the Applicants recognized the limited breadth of the 1991 Parent Application and signaled their intention to expand it through their March 21, 1996 filing of App. No. 08/848,082 (referenced herein as “the 1996 CIP Application” or “the CIP Application” (Exh. 7)). The 1996 CIP Application expressly recognizes the limits of the original 1991 Parent Application:

The incorporated material, including the Dennison et al patent [1991 Parent Application] disclose that cell sites sometimes have overlapping coverage due to the aforementioned variations in terrain and environment, and propose a solution. While the proposed solution works well, *there is still room for further improvement in the areas of cost, subscriber service, billing and taxing.* (1996 CIP Application, at 8:14-19 (emphasis added); see also '763 Patent, at 4:27-33.)

The Applicants then dramatically expanded the disclosure. The patent drawings were almost completely re-done, with the Applicants deleting Figs. 8-11 and adding new Figs. 3-5 and 8-17. Furthermore, the specification was completely re-written to add new subject matter corresponding to the new figures.⁴

Two new matters added in the 1996 CIP Application are particularly relevant for determining whether the requested claims of the '763 Patent are entitled to the 1991 filing date. First, the Applicants added new matter relating to updating the exact geographic location of the mobile unit based on exceeding an interval as shown in a portion of Fig. 8 below. This figure and its corresponding discussion in the 1996 CIP Application (27:14-29:13) are *not* in the 1991 Parent Application. As will be discussed in Part 4, the Applicants then claimed this new matter in requested claims 1-6.

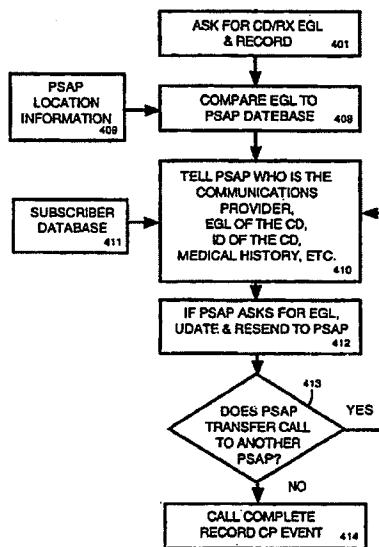
⁴ A redline comparison of the 1996 CIP Application to the 1991 Parent Application is submitted as Exh. 8. This redline was generated by the Requester by comparing the text of the specifications (but not the claims) of the '633 Patent (issued from the 1991 Parent Application) and the '404 Patent (issued from the 1996 CIP Application), with the text of the issued '633 and '404 Patents downloaded from the PTO website.



Second, the disclosure relating to emergencies was greatly expanded between the 1991 Parent Application and the 1996 CIP Application. The 1991 Parent Application merely described sending a recorded GPS “location” of a mobile unit to a “Bell Tel. Co.” upon a “911 emergency call” as shown below. (1991 Parent Application, at Fig. 11A.)



In contrast, in the 1996 CIP Application, the Applicants added Fig. 9B and a corresponding discussion in the specification. (See 1996 CIP Application, at 27:1-13; '763 Patent, at 12:30-44.)



The added disclosure described “proper routing of the emergency communication process” to a PSAP by obtaining the location of the mobile unit and comparing the location to a PSAP location database as shown at 408 of Fig. 9B (partially shown above). (*Id.*) Fig. 9B at 410 also illustrates forwarding the location and ID of the mobile unit to the PSAP for emergency services. Once again, this figure and its corresponding discussion in the 1996 CIP Application are *not* in the 1991 Parent Application.

The 1996 CIP Application with this additional disclosure matured into U.S. Patent No. 6,324,404 (“the ‘404 Patent”), which was followed by a continuation application (App. No. 09/662,613) that subsequently issued as U.S. Patent No. 6,847,822 (“the ‘822 Patent”). On November 22, 2004, the Applicants filed a divisional application to the ‘822 Patent that was based on the 1996 CIP Application.⁵ This divisional application (App. No. 10/993,447) matured into the ‘763 Patent after an examination of its claims.

C. The Original Examination Of The ‘763 Patent

The claims of the ‘763 Patent were not rejected based on prior art. They were instead rejected solely based on non-statutory double patenting, and these rejections were overcome through terminal disclaimers filed on May 16, 2007 and July 16, 2007. In the August 22, 2007 Notice of Allowability (Exh. 9), the Examiner explained his reasons for allowance which are summarized below for each of the requested independent claims 1, 9 and 23.

1. Claim 1

The Examiner explained that the prior art reference Bini (U.S. Patent No. 4,700,374) disclosed a telecommunication system comprising a data storage system for recording a

⁵ The specification was thereafter amended in a March 10, 2006 Preliminary Amendment. In the accompanying Remarks, the Applicants told the PTO that the “specification paragraphs being replaced herein contain clerical type errors[,]” and that “no new matter” was being introduced by virtue of the amendments to the specification.

geographic location associated with a mobile unit identification as recited in claim 1. What imparted patentability, according to the Examiner, was the recited updating system: “a search of the prior art does not specifically disclose wherein a [sic] updating response system responsive to an inaccuracy in the geographic location associated with the mobile unit identification number that exceeds an interval defined by said updating system.” (Notice, at 3.) The Applicants had never separately argued the patentability of dependent claims 2-6, and the Examiner found them allowable based on their dependence from claim 1. (*Id.*)

2. **Claim 9**

The Examiner found that the prior art reference Gilhousen (U.S. Patent No. 5,056,109) disclosed the first three limitations of claim 9:

9. A cellular communications system comprising:

[1] a cellular communication network comprising a plurality of cell sites, and a plurality of mobile units, for radio frequency communication between said cell sites and mobile units,

[¶][2] at least one of said cell sites receiving an identification of a specific mobile unit,

[¶][3] said cellular communication network communicating with said specific mobile unit via a cell site chosen based upon signal strength[.]

These three limitations track the admissions in the '763 Patent relating to [1] a cellular communication network, [2] a mobile unit ID for communication, and [3] the use of signal strength to establish communication.

Accordingly, the Examiner characterized only the remaining limitation of claim 9 – directed to forwarding location information – as imparting patentability:

[T]he prior art does not specifically disclose the positioning system obtaining a position for said specific mobile unit identifying an exact geographic location of a [sic] the specific mobile unit, and forwarding said exact geographic location of the specific mobile unit and forwarding said exact geographic location and specific mobile unit identification for use in subsequent services. (*Id.* at 3-4.)

Once again, the Applicants had never separately argued the patentability of dependent claims 10-15 and 19-22, and the Examiner found them allowable based on their dependence from claim 9. (*Id.* at 4.)

3. Claim 23

The Examiner made clear that at least the first two steps of claim 23 were known in the art:

The Bini reference (US 4,700,374) discloses the method of providing a location based service comprising the steps of: obtaining a unique mobile identification number from a mobile unit via a cellular communication system comprising a plurality of networked antennas, the mobile unit being in radio contact with at least one of the networked antennas; and receiving a request for a location based service from the mobile unit.” (*Id.*)

According to the Examiner, what imparted patentability were the remaining steps of claim 23:

- “acquiring positional data corresponding to the exact geographic location for the mobile unit via the cellular system”
- “comparing the positional data with stored geographic data for the location based service”; and
- “responding to the request for a location based service based on the comparison.” (*Id.*)

As with independent claims 1 and 9, the Examiner found dependent claims 24-32 allowable based on their dependence from claim 23. (*Id.*)

4. Comments to Reasons for Allowance

The Applicants thereafter filed Comments in response to the Notice of Allowability on September 21, 2007. The Applicants contended that Bini failed to disclose the step of “receiving a request for a location based-service from the mobile unit” as the Examiner had found for claim 23. (Comments On Statement For Reasons For Allowance (“Comments”), at 1 (Exh. 10).) In doing so, the Applicants emphasized that claim 23 encompassed the emergency services described in *newly added* Fig. 9B of the '763 Patent:

[A location-based] service is disclosed in the pending application (see for example paragraphs 26, 27, 80 and figure 9B, which describe an emergency call service request being sent from the mobile unit to an emergency response system or law enforcement agency, along with the location of the mobile unit). (*Id.*)

The '763 Patent subsequently issued on October 30, 2007.

D. The Previous Reexamination Of The '763 Patent

After issuance, the '763 Patent was the subject of an *ex parte* reexamination bearing control no. 90/010,478 (“the previous reexamination” or “the '478 reexamination”). This request for reexamination was initiated on April 6, 2009, and sought reexamination of claims 1-6, 9-13, 20, 21, and 23-32 based on two non-intervening references and six intervening references.

In a June 5, 2009 Order, the Examiner denied the request for reexamination. (“Order,” at 2 (Exh. 11).) The Examiner first summarized the reasons for allowance of the claims in the original examination as discussed above. (*Id.* at 5-6.) The Examiner then assessed whether the requested claims were entitled to the filing date of the 1991 Parent Application and whether the art that was prior to the appropriate filing date raised substantial new questions of patentability.

1. Claim 1

The Examiner determined that claim 1 was *not* entitled to the 1991 filing date, because the 1991 Parent Application failed to disclose updating based on an interval:

With regard to claim 1, the earlier parent patent (5,546,445) and great-great-grandparent parent (5,235,633) fail to adequately describe certain limitations of the claim. For example, US Pat 5,235,633 fails to describe any sort of interval or any step of responding to such an interval by updating a location. Thus claim 1 is insufficiently supported by the above-mentioned patent specifications to have established possession of the invention[.] (*Id.* at 7.)

The Examiner then considered the art raised in the previous request, but found that none of those prior art references raised a substantial new question of patentability for claim 1. According to the Examiner, the references were similar to Wang et al. (U.S. Patent No. 5,365,451), which had been considered in the original examination; like Wang, they disclosed updating the location

after an interval is exceeded, but did not disclose the added requirement of updating *based on an inaccuracy*. For example, for U.S. Patent No. 5,504,491 to Chapman, the Examiner concluded:

In this case [Chapman] is thus similar to teachings of record such as Wang, which teaches a general tracking system wherein location is compared to boundaries (like an interval) but not with regards to updating location based on an inaccuracy. (*Id.* at 10.)

The Examiner reached the same conclusion as to the other references at issue. (*Id.* at 9-11.)

2. Claim 9

The Examiner determined that the 1991 Parent Application disclosed a single instance of forwarding a mobile unit location for a subsequent service, *i.e.*, in connection with forwarding location upon an emergency call as shown in Fig. 11A. (*Id.* at 8.) Based on this disclosure, the Examiner found that claim 9 was supported by the 1991 Parent Application and, thus, did not consider any of the intervening references for claim 9. (*Id.* at 11-16.) The request had also sought to raise a substantial new question of patentability based on a non-intervening reference (U.S. Patent No. 5,315,636 to Patel), but the Examiner concluded that Patel failed to forward an exact location for subsequent services. (*Id.* at 13.)

3. Claim 23

The Examiner determined that the claimed “location-based service” of claim 23 encompassed “taxing and billing,” and that the 1991 Parent Application disclosed such services. (*Id.* at 8.) Based on this analysis, the Examiner did not consider any of the intervening references for claim 23. (*Id.* at 11-16.) However, the Examiner noted that the 1991 Parent Application’s disclosure of forwarding of a location upon a 911 emergency call did *not* provide support to claim 23. This disclosure, according to the Examiner, fails “to describe comparing such data [location information with stored information] in the case of the emergency call” and “[n]o specific steps are described with regards to routing such a call[.]” (*Id.* at 8.)

4. Decision on Petition Challenging Denial of Reexamination

On July 6, 2009, a Petition challenging the denial of the request was filed. The Director denied the Petition in a decision dated May 26, 2010 (“the Decision,” at 1 (Exh. 12)).

The Director reached the same conclusions as the Examiner for claim 1. First, the Director’s analysis was predicated on claim 1 *not* being entitled to the 1991 filing date. Second, the Director recognized the same limitation – “an updating system responsive to an inaccuracy in the geographic location associated with the mobile unit identification number that exceeds an interval defined by said updating system” – as the “critical feature that defined claim 1 over the prior art of record.” (Decision, at 7.) Third, the Director found that the art in the request merely taught updating based on an interval. (*Id.* at 7-13.) Thus, the prior art relied upon in the request either did not “teach the distinguishing features of claim 1 or the teachings are cumulative to prior art already on the record.” (*Id.* at 7.)

For claims 9 and 23, the Director found that the claims were supported by the 1991 Parent Application. (*Id.* at 5-7.) The Director cited the disclosure of routing calls to the most appropriate cell site based on location and using location upon an emergency call to constitute sufficient support. (*Id.*)

E. The Co-Pending Litigations Of The '763 Patent

As detailed in the “Chronology of Litigation on the '763 Patent” (Exh. 13), the Patent Owner has brought a number of lawsuits alleging infringement of the '763 Patent (and three related EMSAT patents) in three different venues (N.D. Ohio; E.D. Tex.; N.D. W. Va.). The Requester was named as a defendant in the initial wave of five EMSAT lawsuits filed on March 31, 2008 in the N.D. Ohio, and the parties to the *Cellco*, *Sprint*, and *Alltel* cases before Judge Economus filed their claim construction briefing before those cases were stayed pending reexamination on May 21, 2009.

While the *Cellco/Sprint/Alltel* cases were stayed prior to their scheduled *Markman* hearing (and remain stayed), there have been two *Markman* hearings in other EMSAT cases that have resulted in *Markman* Orders implicating certain claim terms of the '763 Patent. On June 23, 2010, Magistrate Everingham of the E.D. Tex. issued a claim construction Order in the *MetroPCS* case. Then, on August 23, 2010, Judge Adams of the N.D. Ohio issued a claim construction Order in the *AT&T* and *T-Mobile* cases.

There are currently a number of actions pending in the N.D. Ohio in which the '763 Patent is at issue (again noting that some of these cases are stayed). In view of these co-pending litigations, it is respectfully requested that this Request be given "priority over all other cases" in accordance with M.P.E.P. § 2661.

PART 2

I. CLAIM CONSTRUCTION

Before proceeding to the substantial new questions of patentability raised by the art in this Request, the Requester addresses below the construction of certain terms as it impacts the scope of the requested claims.

The PTO, of course, must give the requested claims their broadest reasonable construction consistent with the specification. (M.P.E.P. § 2258(I)(G).) In a number of the co-pending litigations, the Patent Owner has broadly construed the requested claims. These constructions are important to this reexamination as they set forth what the Patent Owner believes to be the broadest reasonable construction of the claims. In addition, the prosecution history of the '763 Patent is also important to this reexamination as it sheds light on the PTO's understanding of certain terms.

It should be emphasized that the claim constructions in this Request are not binding upon the Requester in any litigation related to the '763 Patent. The standard for claim construction used by the PTO is different than the standard used by courts. *See, e.g., In re Trans Texas Holding Corp.*, 498 F.3d 1290 (Fed. Cir. 2007). Indeed, any claim construction in this Request should not be viewed as constituting the Requester's construction, and the Requester reserves its right to present its own constructions, at a later time, which may differ from the constructions set forth in this Request.

A. “Responsive To An Inaccuracy”

Claim 1 of the '763 Patent recites “an updating system responsive to an inaccuracy in the geographic location associated with the mobile unit identification number that exceeds an interval.” The specification and figures of the '763 Patent merely disclose updating the exact geographic location based on exceeding an interval, *e.g.*, time or distance. (12:64-13:34; Fig. 8.) Notwithstanding this very limited disclosure, the PTO found in the previous reexamination that

the claim had an additional requirement for updating, *i.e.*, updating occurs when an interval is exceeded *and* when there is an inaccuracy. The Examiner in the Order denying reexamination and the Director in his Decision found that the art in the previous request merely disclosed updating after an interval was exceeded, and did not disclose the additional requirement of an inaccuracy. (*See* Order, at 9-11; Decision, at 7-13.)

The Patent Owner has similarly construed this recitation as requiring an inaccuracy once an interval is exceeded for updating: “The ‘updating system’ responds when the geographic location of the mobile unit identification number (and hence the mobile unit itself) changes: it does so by *checking for a change when a certain interval is exceeded*, such as length of time, distance traveled, etc.” (Patent Owner’s Opening Claim Construction Brief in the *AT&T* case, at 22 (emphasis added) (Exh. 14).)

The art cited in the present Request for claim 1 discloses updating not only after an interval is exceeded, but in response to an inaccuracy.

B. “Exact Geographic Location”

Claims 2, 9 and 19-23 recite the “exact geographic location” of a mobile unit or device. The specification of the '763 Patent makes clear that the “exact geographic location” can be acquired in any number of ways:

The first step in the registration process, block 102 is to determine the exact geographic location, block 201 of the communications device via *either GPS, block 202, signal strength, block 203, Loran, block 204, triangulation, or other similar location means.*” (11:34-39 (emphasis added); *see also* '633 Patent, at 5:64-68.)

Thus, the “exact geographic location” is *not* limited to locations determined via GPS, but rather encompasses other means such as LORAN and triangulation. This broad construction is consistent with the Patent Owner’s construction in the co-pending litigations. (*See, e.g.*, Patent Owner’s Opening Claim Construction Brief in the *Cellco* case (referenced as “Opening Brief in

Celco case”), at 6 (“The proper construction for the phrase ‘exact geographic location’ . . . is: ‘A position in latitude and longitude having a degree of accuracy and precision typical of that obtained from a Global Positioning System (GPS), LORAN, or other position determining system.’”) (Exh. 15).)

C. “A Positioning System”

Claims 2, 9 and 19-22 also recite “a positioning system” for, among other things, obtaining the exact geographic location of the mobile unit or device. The claim language does not restrict the positioning system to the mobile unit. The positioning system can be apart from the mobile unit or even span a number of different entities. Indeed, the Patent Owner has emphasized that the word “system” is “a complex unity formed of many often diverse parts subject to a common plan or serving a common purpose” and that the positioning system is “simply the combination of equipment needed to obtain a position for a specific mobile unit that identifies the exact geographic location of that mobile unit.” (Opening Brief in *Celco* case, at 19-20 (internal quotations and citations omitted).)

D. “Subsequent Services”

Claim 9 recites forwarding the exact geographic location and mobile unit identification “for use in subsequent services.” “Subsequent services” is not literally supported in the specification of the '763 Patent. The Director construed “subsequent services” to encompass call routing for hand-offs and emergency services. (Decision, at 5.) The Patent Owner has proposed a construction that would encompass these services and more: “[a] service that obtains the recorded exact geographic location and mobile unit identification after completion of the communication process that recorded them.” (*Id.*; *see also* Opening Brief in *Celco* case, at 7.)

It should be noted that the Examiner in the pending *inter partes* reexamination of the '822 Patent, the immediate parent of the '763 Patent, has construed “subsequent services” with a

temporal dimension, *i.e.*, the services must be performed during a call in progress. (Office Action (95/001,238), dated March 16, 2010, at 11 (“*Inter Partes* Office Action”) (Exh. 16).) The art in this Request discloses services that are within the scope of “subsequent services” provided in the Director’s Decision and the Patent Owner’s construction and that meet the temporal dimension added by the Examiner in the pending reexamination of the '822 Patent.

E. “Location-Based Service”

Claims 23 and 32 recite a “location-based service.” As with the term “subsequent services,” the term “location-based service” is not literally supported by the specification of the '763 Patent. The Director construed this term similarly to the term “subsequent services” by finding that it encompasses cellular service and emergency services “using location data.” (Decision, at 6.) The Patent Owner has proposed a construction that would encompass these services and more: “[a] service that provides information based at least in part on the location of the requesting mobile unit.” (Opening Brief in *Cellco* case, at 23.) This construction matches the Applicants’ construction in their Comments to the Notice of Allowance. (Comments, at 1.)

F. “Triangulation”

Claims 29-31 recite the positional data being acquired using “triangulation.” The term “triangulation,” although mentioned, is not explicitly defined in the specification of the '763 Patent. (11:34-39.) The Patent Owner has broadly construed triangulation to encompass LORAN: “[a] method of calculating an unknown point, used by position determining systems such as LORAN, by forming a triangle having the unknown point and two known points as the vertices.” (Opening Brief in *Cellco* case, at 24.) It is noted that one of the references – Denekamp – in this Request specifically refers to a LORAN unit performing triangulation. (Denekamp, at 7:49-55.)

G. Claim 29

Claims 28 and 29 of the '763 Patent recite:

28. The method of claim 23, wherein the positional data is acquired using a global positioning system.

29. The method of claim 28, wherein the positional data is acquired using triangulation.

For claim 29, the broadest reasonable construction consistent with the specification is that triangulation is performed along with the use of a global positioning system as recited in claim 28, and not as a separate or independent method of position acquisition. This construction is consistent with the claim language and the specification.

First, claim 29 recites “wherein” positional data is acquired using triangulation. The use of “wherein” emphasizes that claim 29 is meant to further define the acquisition of positional data by the global positioning system of claim 28. Importantly, claim 29 does not recite “further comprising” to indicate that the recited acquisition by triangulation is separate from the acquisition by the global positioning system.

Second, the specification of the '763 Patent consistently refers to acquiring positional data through a *single* source. For example, it provides that the “first step in the registration process, block 102 is to determine the exact geographic location, block 201 of the communications device via *either* GPS, block 202, signal strength, block 203, Loran, block 204, triangulation *or* other similar location means.” (11:34-39 (emphasis added); *see also* 9:55-65; 16:50-55.) There is no disclosure in the '763 Patent of a system using *both* GPS and triangulation to acquire positional data. Thus, the broadest reasonable construction consistent with the specification for claim 29 is that triangulation is performed along with the use of a global positioning system.

It is noted that this construction is consistent with the conventional operation of GPS. Specifically, GPS satellites are extraterrestrial emitter beacons for performing triangulation

calculations. (*See, e.g.*, U.S. Patent No. 5,438,517 to Sennott et al., at 2:14-19 (“[B]y knowing the relative position of at least three of the orbiting GPS satellites, the absolute terrestrial position (that is, longitude, latitude, and altitude with respect to the Earth’s center) of any Earth receiver can be computed via simple geometric theory involving triangulation methods.”) (Exh. 17.) That is, in determining the positional data based on the global positioning system, triangulation is performed.

H. Claim 31

Claim 31 of the '763 Patent recites:

31. The method of claim 23, wherein the positional data is acquired using a system selected from the group consisting of a global positioning system and triangulation.

There is no disclosure in the '763 Patent of a system using *both* GPS and triangulation to acquire positional data as discussed above. There also is no disclosure of a system selecting between GPS and triangulation for acquiring positional data. Accordingly, the broadest reasonable construction consistent with the specification is that claim 31 sets forth a Markush grouping of two alternatives (*i.e.*, a global positioning system and triangulation), either of which can satisfy the claim. (*See* M.P.E.P. § 2173.05(h).)

PART 3

(Non-Intervening Art)

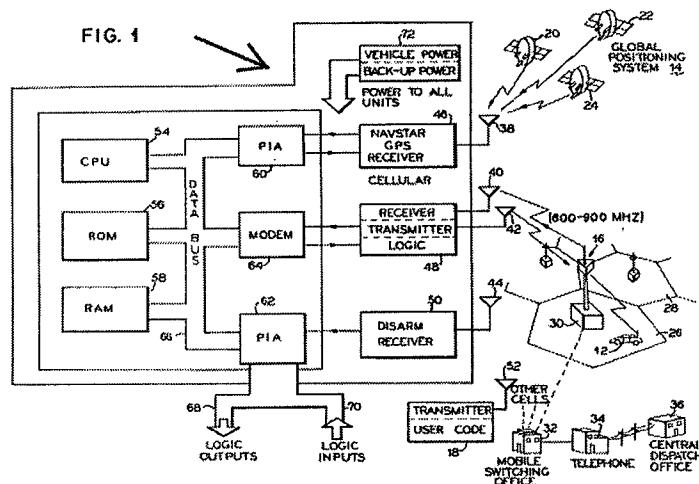
This Request presents three non-intervening references: Rapoport, Gray and Denekamp. These references were not previously considered in the original examination of the '763 Patent or the previous reexamination. As discussed below, each reference raises substantial new questions of patentability. They each provide the teachings that were believed to be missing from the prior art in the original examination and previous reexamination.

I. RAPOPORT

A. Brief Overview Of Rapoport (EP 0242099 A2)

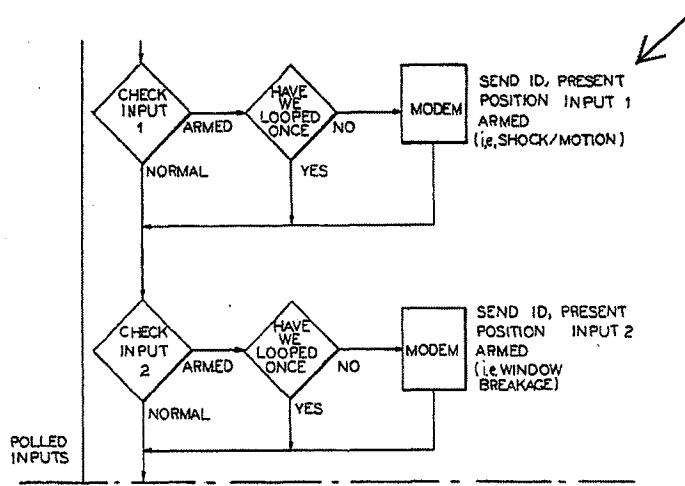
Rapoport (Exh. 18) was published on October 21, 1987. It thus qualifies as prior art to the '763 Patent under 35 U.S.C. § 102(b) regardless of whether the requested claims are entitled to the 1991 filing date of the Parent Application. Rapoport was not considered in the original examination or the previous reexamination of the '763 Patent.

Rapoport is directed to an apparatus that identifies the location of a mobile object, such as a vehicle, and provides services based on the location. As illustrated in Fig. 1 of Rapoport (below), a vehicle is installed with the apparatus to which the arrow (added by the Requester) is pointing. (*See 4:12-13.*)



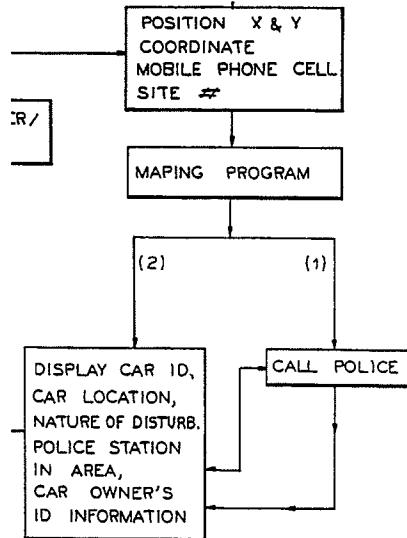
The apparatus includes a GPS receiver 46 for using radio frequencies received from GPS satellites to determine a position of the apparatus and, thus, the vehicle.

When a detector in the vehicle is tripped, the apparatus forwards vehicle identification information, position information, and condition information (*e.g.*, motion detection by the tripped detector) to a central dispatch station via the cellular mobile telephone transceiver 48 in Fig. 1. (7:37-50.) Such transmission is illustrated in the example at the bottom of Fig. 5B (shown below with arrow added by Requester) for a detection of “shock/motion”:



Rapoport further discloses that the apparatus periodically updates position information. (See Abstract; 3:4-6; claims 3 and 9.)

The central dispatch station then provides numerous emergency services based on the vehicle's location. As shown in the below excerpt of Fig. 9, the location is compared with a pre-stored map of a mapping program and with previous locations of the vehicle, so as to provide real-time tracking information to the police. (4:37-39; 6:23-27.)

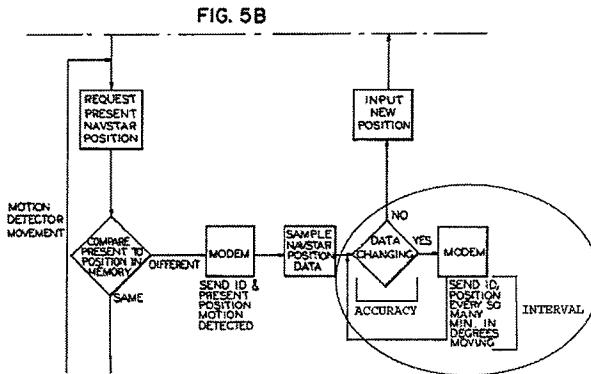


In addition, Rapoport discloses that the vehicle can be disabled at its location via the cellular communication link between the apparatus of the vehicle and the central dispatch station. (3:9-10; 5:21-24.) This service would be helpful, for instance, if the police are in pursuit of a stolen vehicle equipped with the Rapoport apparatus.

B. Substantial New Questions Of Patentability Based On Rapoport

Rapoport discloses the very limitation that the PTO found to be missing in the art of the original examination and previous reexamination with respect to claim 1 and its dependent claims, *i.e.*, “an updating system responsive to an inaccuracy in the geographic location associated with a mobile unit identification number that exceeds an interval defined by said updating system.”

As shown at the top left of Fig. 5B (below), the vehicle’s present position in Rapoport is checked against the stored position in memory. If the positions are different, the vehicle is moving and the system enters an accuracy check procedure (circled and marked below by the Requester):



Specifically, the system checks whether the position data are “changing” as shown, *i.e.*, whether the previously obtained position information is inaccurate due to the movement of the vehicle. If the previously obtained position is inaccurate, new position information is sent to the central dispatch office after an interval is exceeded (“Send ID, Position, Every So Many Min.”). This accuracy check keeps repeating until the vehicle stops moving, *i.e.*, until the data is *not* changing.

With respect to claim 9 and its dependent claims, Rapoport also discloses the limitation that the PTO found missing in the art of the original examination and the previous reexamination of the '763 Patent, *i.e.*, a “positioning system obtaining a position for said specific mobile unit identifying an exact geographic location of the specific mobile unit, and forwarding said exact geographic location and specific mobile unit identification for use in subsequent services.”

Fig. 1 of Rapoport (above) illustrates that the apparatus in the vehicle has a GPS receiver 46 for “precisely identifying the position” of the mobile unit or vehicle. (2:52-55; 3:46-49.) Rapoport discloses that the geographic location of the vehicle is forwarded by the apparatus in the vehicle to the central dispatch office with the vehicle’s identification: “the microprocessor [of the apparatus] identifies itself to the central dispatch office and alerts the same to the nature of the disturbance” and the “system periodically updates vehicle location by way of digital signals sent to the central dispatch station by way of a cellular mobile telephone system.” (Abstract; *see also* 4:37-39.) This forwarded location information is used by the central dispatch

to provide emergency services to the vehicle at its location, such as dispatching police to the location (*see* Fig. 9) and disabling the vehicle via the cellular communication (3:9-10; 5:21-24).

With respect to claim 23 and its dependent claims, Rapoport again discloses the steps that the PTO found missing in the art of the original examination and the previous reexamination of the '763 Patent, *i.e.*, “acquiring positional data corresponding to an exact geographic location for the mobile unit via the cellular communication system,” “comparing the positional data with stored geographic data for the location-based service,” and “responding to the request for a location-based service based on the comparison.”

In Rapoport, the apparatus obtains the geographic location of the vehicle via the GPS receiver 48, and this location is acquired by the central dispatch office via the cellular communication system as shown in Figs 5B and 9 (above). (*See also* 2:52-55; 3:46-49; 4:37-39; Abstract.) As also shown in Fig. 9 of Rapoport, the acquired position data of the vehicle is compared to the stored geographic data of the central dispatch office’s mapping program so that “the authorities may be informed of vehicle location,” *i.e.*, for the appropriate emergency vehicle to be dispatched to the location or to disable the vehicle at its location. (*See* 6:24-28; 3:9-10; 5:21-24.)

These technological teachings of Rapoport were not considered in the original examination or the previous reexamination of the '763 Patent, as Rapoport was not of record in either proceeding. Thus, Rapoport provides new, non-cumulative technological teachings that raise substantial new questions of patentability.

C. Detailed Proposed Rejections Based On Rapoport

The Requester respectfully submits the following proposed rejections based on Rapoport, which are detailed in the accompanying claim charts:

1. Claims 1-5, 23 and 26-32 are anticipated under § 102(b) by Rapoport.
(Exh. 19.)
2. Claims 9-15 and 19-22 are obvious under § 103(a) in view of Rapoport and the Admitted Prior Art. (Exh. 20.)
3. Claims 24 and 25 are obvious under § 103(a) in view of Rapoport and Gojanovich, et al., New Jersey Bell Network Proposal, published November 20, 1989 (“Gojanovich”) (Exh. 21). The chart for this combination is at Exh. 22. Gojanovich qualifies as prior art to the '763 Patent under 35 U.S.C. § 102(b) regardless of whether the requested claims are entitled to the 1991 filing date of the Parent Application. As discussed in detail in the accompanying claim chart (Exh. 22), Gojanovich discloses routing an emergency call (at 12, 13, and 15) and, in combination with Rapoport, renders obvious claims 24 and 25. Gojanovich was not considered in the original examination; while Gojanovich was considered in the previous reexamination, it was not considered in combination with Rapoport.
4. Claims 29-31 are obvious under § 103(a) in view of Rapoport and U.S. Patent No. 4,459,667 to Takeuchi (Exh. 23). The chart for this combination is at Exh. 24. Takeuchi qualifies as prior art to the '763 Patent under 35 U.S.C. § 102(b) regardless of whether the requested claims are entitled to the 1991 filing date of the Parent Application. As discussed in detail in the accompanying claim chart (Exh. 24), Takeuchi discloses employing alternative position acquisition methods (1:15-64) and, in combination with Rapoport, renders obvious claims 29-31. Takeuchi was not considered in the original examination or the previous reexamination of the '763 Patent.

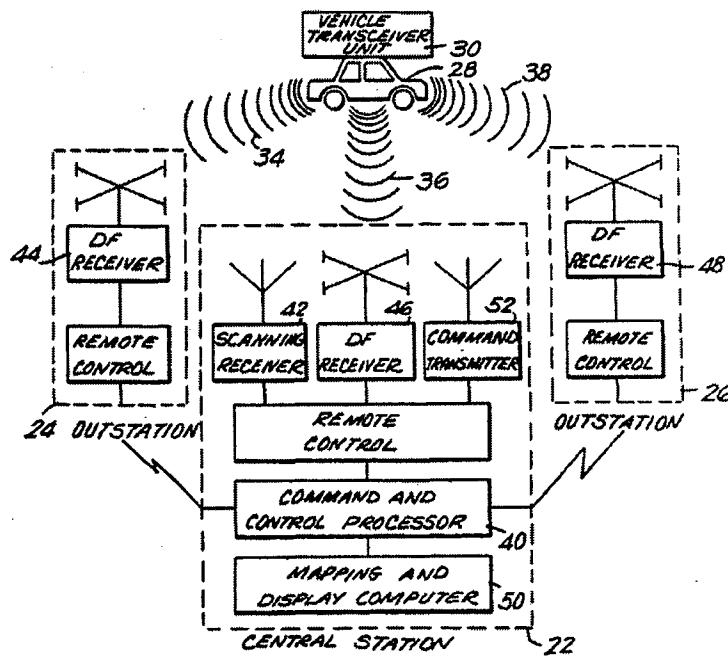
It should be noted that the claim charts above and, in fact, all the charts incorporated in this Request, show the preambles of the rejected claims being met. However, the Requester is not taking a position about whether the preambles for the requested claims are limiting.

II. GRAY

A. Brief Overview Of Gray (U.S. Patent No. 5,003,317)

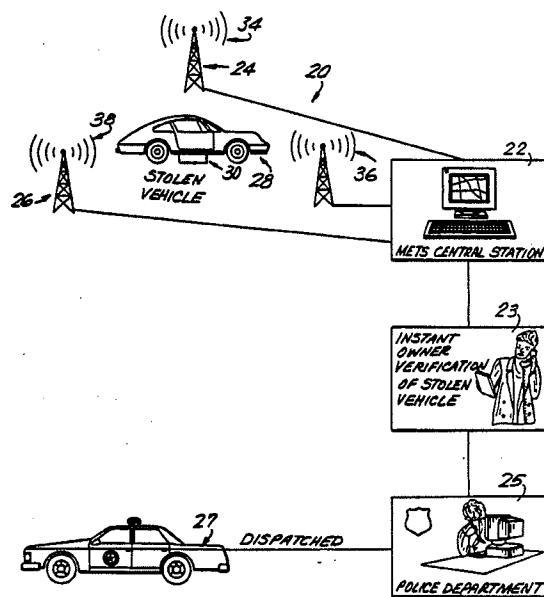
Gray (Exh. 25) was filed on July 11, 1989. It thus qualifies as prior art under 35 U.S.C. § 102(e) regardless of whether the requested claims are entitled to the 1991 filing date of the Parent Application. Gray was not considered in the original examination or the previous reexamination of the '763 Patent.

Gray is directed to a system for dispatching police to the location of a stolen vehicle. Fig. 1 (below) illustrates that the system includes a mobile unit or vehicle 28 with a vehicle transceiver unit 30. The transceiver unit is in communication with a network of stations 22, 24 and 26 having antennas 46, 44 and 48, respectively. (*See also* 2:58-3:15.)



When a vehicle installed with the Gray system is stolen, the transceiver unit 30 transmits a signal to the stations which "includes the vehicle identity code, which is preferably unique to each vehicle in the system 20 [.]" (3:9-15.) Gray discloses that the system may be embodied "in a cellular telephone version" in which location data obtained via LORAN-C or triangulation is sent to the central station 22. (10:6-36.)

The central station 22 has a mapping and display computer that is referenced as item 50 in Fig. 1 of the Gray patent and is illustrated below in Fig. 9:



The computer obtains the position data from the vehicle and compares it to its stored data for displaying the vehicle's position on the appropriate map. (7:28-32.) Based on this comparison, the central station then notifies the police department of the vehicle's location for dispatching as shown above in Fig. 9. (10:15-27; 4:17-21.) In addition, Gray discloses the ability to disable the vehicle at a given location through real-time tracking. (4:51-57; 6:25-34.)

B. Substantial New Questions Of Patentability Based On Gray

Gray discloses the limitation that the PTO found missing in the art of the original examination and previous reexamination for claim 9 and its dependent claims. It expressly

discloses that the vehicle obtains its position via LORAN-C (which provides an exact geographic location according to the '763 Patent) and forwards its position and identification to a central station which, in turn, provides emergency services:

If, however, the alarm is not deactivated in the appropriate verification interval, then the cellular telephone in the vehicle 28 would act as the vehicle transceiver 30 and would automatically dial-up and transmit LORAN-C coordinates to the central station, similar to the manner in which a home burglar [sic] system alerts a central station 22 of unauthorized entry. The central station 22 would then verify the alarm with the owner of the vehicle and, after confirmation, would then link the stolen vehicle transmission to the police department for tracking on the aforementioned mapping system 50. (10:15-27; *see also* Fig. 9; 4:17-21; 3:9-15.)

Gray also discloses the steps of claim 23 and its dependent claims that the PTO found missing in the art of the original examination and previous reexamination of the '763 Patent. As quoted immediately above, Gray discloses that the central station acquires LORAN-C coordinates of the vehicle via the cellular communication network. (10:15-22.) The central station has a mapping and display computer that compares the received data to its stored data for displaying the vehicle's position on the appropriate map:

The details from the direction finding receivers 44, 46, and 48, verified by the command and control processor 40, are, as previously mentioned, preferably processed by the mapping and display computer 50 and displayed on the appropriate terrain map. (7:28-32.)

Based on this comparison, an emergency vehicle is dispatched to the location as illustrated in Fig. 9 of Gray. In addition, the vehicle may be disabled at a given location. (4:51-57.)

These technological teachings of Gray were not considered in the original examination or the previous reexamination of the '763 Patent, as Gray was not of record in either proceeding. Thus, Gray provides new, non-cumulative technological teachings that raise substantial new questions of patentability.

C. Detailed Proposed Rejections Based On Gray

The Requester respectfully submits the following proposed rejections based on Gray, which are detailed in the accompanying claim charts:

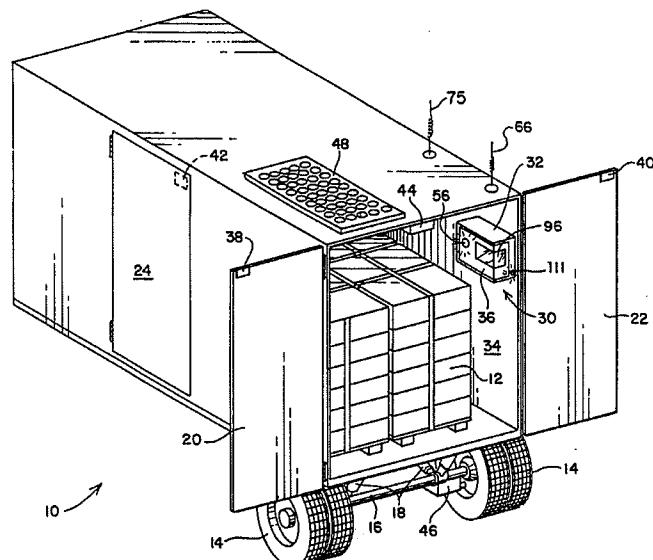
1. Claims 9-11 and 19-22 are obvious under § 103(a) in view of Gray and the Admitted Prior Art. (Exh. 26.)
2. Claims 23-27 and 30-32 are anticipated under § 102(e) by Gray. (Exh. 27.)

III. DENEKAMP

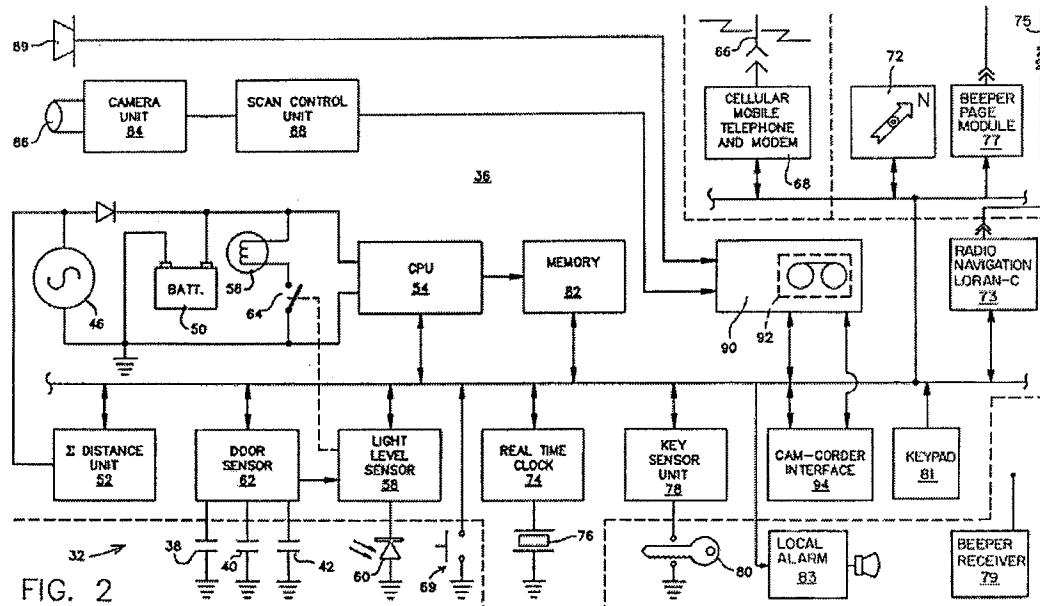
A. Brief Overview Of Denekamp (U.S. Patent No. 4,750,197)

Denekamp (Exh. 28) issued on June 7, 1988. It thus qualifies as prior art under 35 U.S.C. § 102(b) regardless of whether the requested claims are entitled to the 1991 filing date of the Parent Application. Denekamp was not considered in the original examination or the previous reexamination of the '763 Patent.

Denekamp is directed to a cargo transportation security system for determining the location and status of a truck trailer. As illustrated in Fig. 1 below, the system includes a security module 30 that is securely attached to the inside wall 34 of a trailer 10:



The security module includes a number of devices for determining its location and, thus, the trailer's location. As illustrated in Fig. 2 (below), the location determining devices include a summing unit 52 for determining the distance traveled by the trailer, a compass unit 72 for providing real time information on the orientation of the trailer, and a radio navigation unit 73 (such as LORAN-C) for determining latitude and longitude. (6:48-56; 7:42-63.)



The security module generates a "status number" or status update at "predefined intervals" (e.g., time or distance) or whenever there is a detected change in status. (10:32-35.) At each interval, the status number can include the distance travelled via summing unit 52, the direction travelled via the compass unit 72, the present latitude and longitude determined via the radio navigation unit 73, the status of cargo doors, and the motion status (at rest or moving) of the trailer. (10:16-31; *see also* 13:1-21.)

Denekamp discloses that the status information collected by the security module at intervals can be sent to a central facility during the trip. (4:44-46.) This is achieved via a

cellular mobile telephone unit in the security module in cellular communication with the central facility. (7:5-15.)

At the central facility, a computer 100 utilizes some or all the location information in the “status numbers” or updates to make a trip plot. Specifically, the computer uses the data from the summing unit and compass unit and/or the data from the radio navigation unit to plot a series of points, at the defined intervals, that reflect the path of the trailer. (13:6-23.) It should be emphasized that these status numbers can be transmitted in real-time to provide the central facility with real-time plotting of the trailer’s trip:

Detours/tampering/cargo loss are actually capable of being detected and stopped during the course thereof by appropriate personnel when the trailer is configured with a real time automatic dial cellular telephone modem unit. (12:18-22 (emphasis added).)

In addition to trip plotting, Denekamp discloses an emergency service. In the case of an emergency, such as a “hijacking or breakdown,” the cellular telephone unit sends an alarm message with status numbers to the central computer. (4:65-5:5; 11:31-42.) Based on the received location information in the status numbers, the central facility can dispatch aid to the location of the trailer. (*Id.*)

B. Substantial New Questions Of Patentability Based On Denekamp

With respect to claim 1 and its dependent claims, Denekamp teaches the very limitation that the PTO found missing in the art of the original examination and the previous reexamination of the '763 Patent. Denekamp discloses updating location information at predefined intervals: “At predefined intervals and events, the CPU generates a status number that indicates . . . present location as determined via the radio navigation equipment 73.” (10:16-36.) Unlike the previously considered art which the PTO found to merely update location at intervals, Denekamp further discloses checking the accuracy of the location information: “The inclusion of both a

magnetic compass 72 and a radio navigation unit 73 within a security module 30 is advantageous in the sense that each may . . . provide a relative check on the accuracy of the other." (7:64-68.) The central computer can then update the location on its plot based on data from the compass unit *and/or* the location from the radio navigation unit. (13:1-23.)

With respect to claim 9 and its dependent claims, the security module obtains the location of the security module via its LORAN-C receiver and forwards the location and identification to the central facility:

The memory unit 82 [of the security module] is of sufficient size to accumulate all of the data needed to reconstruct the particular trip at the central facility 70. ... [The data] may be periodically sent to the central facility 70 over the radio link provided by e.g. the cellular telephone 68[.] (8:25-33; *see also* 7:42-63.)

The received data are used to provide emergency services:

When [an alarm is] activated, this feature sends trailer location and status number to the central facility where security personnel are automatically alerted and may dispatch appropriate aid to the location. (5:2-5; *see also* 11:31-42.)

Such service can be provided in real-time:

Detours/tampering/cargo loss are actually capable of being detected and stopped during the course thereof by appropriate personnel when the trailer is configured with a real time automatic dial cellular telephone modem unit. (12:18-22.)

Thus, Denekamp discloses the elements that the PTO found missing in the art of the original examination and previous reexamination of the '763 Patent with respect to claim 9.

Finally, with respect to claim 23 and its dependent claims, Denekamp also discloses the steps that the PTO found missing in the art of the original examination and previous reexamination of the '763 Patent. Denekamp discloses that the security module obtains its location via the LORAN-C radio navigation unit, and that the central computer acquires this location via the cellular communication system. (7:49-63; 4:44-46; 4:65-5:5; 8:25-33.) The computer then compares the received location information to a previous location so as to

determine the path of the trailer and provide emergency services at that location. (13:1-21; 4:65-5:5; 11:31-42; 12:18-22.)

These technological teachings of Denekamp were not considered in the original examination or the previous reexamination of the '763 Patent, as Denekamp was not of record in either proceeding. Thus, Denekamp provides new, non-cumulative technological teachings that raise substantial new questions of patentability.

C. Detailed Proposed Rejections Based On Denekamp

The Requester respectfully submits the following proposed rejections based on Denekamp, which are detailed in the accompanying claim charts:

1. Claims 1-5, 9-15, 20-23 and 26-32 are obvious under § 103(a) in view of Denekamp and the Admitted Prior Art. (Exh. 29.)
2. Claims 24 and 25 are obvious under § 103(a) in view of Denekamp and Gojanovich. (Exh. 30.) As with Rapoport, while Gojanovich was considered in the previous reexamination of the '763 Patent, it was not considered in combination with Denekamp.

PART 4

(Intervening Art)

I. THE REQUESTED CLAIMS OF THE '763 PATENT ARE ENTITLED, AT MOST, TO THE FILING DATE OF THE 1996 CIP APPLICATION

M.P.E.P. § 2617 provides that a reexamination request “may, where appropriate, point out that claims in the patent for which reexamination is requested are entitled only to the filing date of the patent and are not supported by an earlier foreign or United States patent application whose filing date is claimed.” As discussed below, the requested claims are *not* supported by the 1991 Parent Application. They are entitled, at most, to the filing date of the 1996 CIP Application, *i.e.*, March 21, 1996.⁶

A. Claims 1-6 Claim New Matter That Was Added In The 1996 CIP Application And Are Entitled, At Most, To The 1996 Filing Date

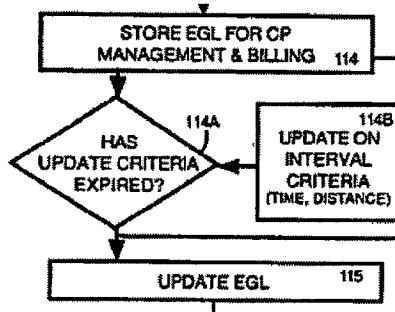
Claim 1 recites “an updating system responsive to an inaccuracy in the geographic location associated with the mobile unit identification number that exceeds an interval defined by said updating system.”

This claimed subject matter was *not* present in the 1991 Parent Application. The 1991 Parent Application merely disclosed *constantly updating* the position of the mobile unit:

The position of the mobile unit is constantly updated, and call management decisions, such as handoffs, can be made based on the location of the mobile unit rather than the strength of the signal associated with that unit. (1991 Parent Application, at 7:13-16.)

In 1996, the Applicants expanded the disclosure to include *updating based on exceeding an interval*. For example, the Applicants added Fig. 8, including the portion below, to disclose updating based on the interval criterion of time or distance (114A/114B).

⁶ The Requester reserves its right to challenge, during litigation, the entitlement of the requested claims even to the 1996 filing date.



The Applicants then captured this new matter by expressly claiming *updating based on exceeding an interval*: “*an updating system* responsive to an inaccuracy in the geographic location associated with the mobile unit identification number that *exceeds an interval defined by said updating system.*” Dependent claims 4-6 further claim updating based on an interval criterion of time, distance or geographic boundary.

It is axiomatic that a claim reciting new matter added in a CIP application is only entitled to the filing date of the CIP application. (*See, e.g.*, M.P.E.P. § 201.11(I)(B) (“[I]f a claim in a continuation-in-part application recites a feature which was not disclosed or adequately supported by a proper disclosure under 35 U.S.C. 112 in the parent non provisional application, but which was first introduced or adequately supported in the continuation-in-part application, such a claim is entitled only to the filing date of the continuation-in-part application[.]”) (case citations omitted).) Here, claims 1-6 are claiming a feature (*updating based on exceeding an interval*) that was not disclosed in the 1991 Parent Application and was first introduced with the filing of the 1996 CIP Application. Thus, claims 1-6 are, at most, entitled only to the filing date of the 1996 CIP application.

Unsurprisingly, the Examiner in the previous reexamination reached the same conclusion as to lack of written description support. He determined that claims 1-6 were entitled only to the 1996 filing date, because the 1991 Parent Application failed to disclose *updating based on exceeding an interval*:

With regard to claim 1, the earlier parent patent (5,546,445) and great-great-grandparent parent (5,235,633) fail to adequately describe certain limitations of the claim. For example, US Pat 5,235,633 *fails to describe any sort of interval or any step of responding to such an interval by updating a location.* Thus claim 1 is insufficiently supported by the above-mentioned patent specifications to have established possession of the invention[.] (Order, at 7 (emphasis added).)

Accordingly, the Requester respectfully requests that the Examiner in the present reexamination reach the same conclusion.

B. Claims 9-15 And 23-32 Also Encompass Matter Added In The 1996 CIP Application And Are Entitled, At Most, To The 1996 Filing Date

Independent claim 9 is directed to forwarding an exact geographic location and ID of a mobile unit “for use in subsequent services.” Independent claim 23 is directed to a method of providing a “location-based service.” As with independent claim 1, these claims (and thus their dependent claims) are not supported or enabled by the 1991 Parent Application and are entitled, at most, to the filing date of the 1996 CIP Application.

1. The Limited Disclosure of the 1991 Parent Application

The terms “subsequent services” and “location-based services” do not appear in the 1991 Parent Application at all. Nor did the original application provide a clear list of subsequent services or location-based services. Indeed, when the Examiner in the previous reexamination searched the 1991 Parent Application, he found only a single instance of forwarding a mobile unit location for a “subsequent service.” That instance concerned forwarding location upon an emergency call, as shown in a portion of Fig. 11A below. (See Order, at 8 (“The Examiner also notes that an emergency call appears to be the only such ‘subsequent service’ which is supported by said earlier disclosures with respect to the step of forwarding the mobile location.”).)



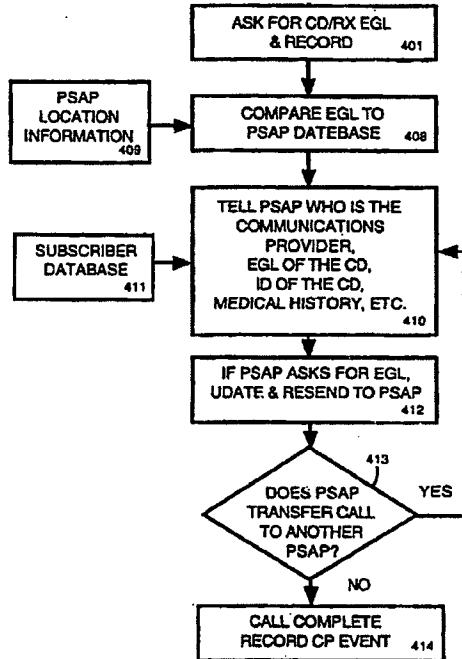
As for “location-based services,” the Examiner found examples of taxing and billing, but he also concluded that the 1991 Parent Application did not “describe comparing such data [location information with stored information] in the case of the emergency call” and that “[n]o specific steps are described with regards to routing such a call, rather Fig. 11A merely states that the user location is forwarded to the Bell telephone system in such a call.” (*Id.*)

2. The New Matter of the 1996 CIP Application

In 1996, the Applicants also recognized the limits of the 1991 Parent Application and signaled their intention to expand their disclosure with a CIP application. The Applicants, in fact, admitted in the 1996 CIP Application the need to improve the disclosure of services described in the 1991 Parent Application:

The incorporated material, including the Dennison et al patent [1991 Parent Application] disclose that cell sites sometimes have overlapping coverage due to the aforementioned variations in terrain and environment, and propose a solution. While the proposed solution works well, *there is still room for further improvement in the areas of cost, subscriber service, billing and taxing.* (1996 CIP Application, at 8:14-19 (emphasis added); *see also* '763 Patent, at 4:27-33.)

The “improvement” – *i.e.*, the new matter added by the 1996 CIP Application – was a new emergency communication process, as illustrated in new Fig. 9B (shown partially below). At block 408, the process compares the exact geographic location with a PSAP database. Based on this comparison, the emergency call itself is routed to the appropriate PSAP. (1996 CIP Application, at 27:1-13; *see also* '763 Patent, at 12:30-44.) In addition, block 410 shows that the location and ID of the mobile unit are forwarded to the PSAP for emergency services. (*Id.*)



Thus, while the 1991 Parent Application merely referred in passing to forwarding the user location to a telephone company, the 1996 CIP Application disclosed routing the emergency call to a PSAP and forwarding the exact geographic location and mobile unit ID to the PSAP for providing emergency services.

3. Claims 9 and 23 of the '763 Patent Claim New Matter Added in the 1996 CIP Application

The Applicants then claimed the new matter in the '763 Patent. Claim 9 recites “forwarding said exact geographic location and specific mobile unit identification for use in subsequent services.” Dependent claim 20 recites “said data storage system makes said exact geographic location accessible for *emergency services provisioning*.⁷ Similarly, claim 23 recites “responding to the request for a location-based service based on the comparison.” Dependent claim 24, in turn, recites “wherein the step of responding to the request comprises

⁷ There is no antecedent basis for “said” data storage system in claim 20. The Requester reserves its right to challenge claim 20 (and claim 21) under § 112, second paragraph, during any litigation on those claims.

routing a communication involving the mobile unit based on the comparison.” Claim 25, in turn, depends from claim 24 and recites that “the request is an emergency call.”

To the extent these claims are supported at all, they are supported by the new matter added in the 1996 CIP Application, and the Applicants acknowledged as much during prosecution. In their Comments to the Notice of Allowability for the '763 Patent, the Applicants emphasized that claim 23 encompassed the emergency services described in Fig. 9B of the '763 Patent and its corresponding discussion in the specification, which were *newly added* in the 1996 CIP Application:

[A location-based] service is disclosed in the pending application (see for example paragraphs 26, 27, 80 and *figure 9B*, which describe an emergency call service request being sent from the mobile unit to an emergency response system or law enforcement agency, along with the location of the mobile unit). (Comments, at 1 (emphasis added).)

4. The Claimed New Matter of Claims 9 and 23 Is Not Supported or Enabled by the 1991 Parent Application

A touchstone for the written description and enablement requirements is determining the subject matter encompassed by the claims. (*See, e.g.*, M.P.E.P. § 2164.08 (“All questions of enablement are evaluated against the claimed subject matter.”); M.P.E.P. § 2163(II)(A) (explaining that determining the adequacy of written description support begins by first determining “what the claim as a whole covers.”).) The 1991 Parent Application does not demonstrate that the Applicants possessed or enabled the *full scope* of claims 9 and 23.

For example, there is nothing in the 1991 Parent Application to indicate that the Applicants possessed or enabled routing a mobile unit communication for an emergency call based on a comparison of the unit’s location with a PSAP database as illustrated in Fig. 9B and encompassed by claim 23 of the '763 Patent. Nor is there anything to indicate that the

Applicants possessed or enabled forwarding location information and mobile unit ID to the PSAP for emergency services as encompassed by claim 9.

In fact, the 1991 Parent Application's disclosure as to emergency calls is extremely limited as the Examiner in the previous reexamination recognized. The box in Fig. 11A discloses only forwarding a location of the mobile unit to a telephone company. Of course, simply forwarding a *location* of a mobile unit to a *telephone company* is very different than *routing* the communication or forwarding the location to a *PSAP* for emergency services as illustrated in Fig. 9B. (*See also* Order, at 8.) Again, the Applicants themselves recognized the scant disclosure of the 1991 Patent Application in this regard, which motivated them to augment the disclosure by adding extensive new matter in the 1996 CIP Application.

In such situations, *PowerOasis, Inc. v. T-Mobile USA, Inc.*, 522 F.3d 1299 (Fed. Cir. 2008) dictates a finding of entitlement to only the CIP filing date. The parent application in *PowerOasis* described a display or user interface as part of a vending machine. A CIP application was later filed to improve the invention by having the user interface remote from the vending machine. When patents from the CIP application issued, the claims referred to a "customer interface" but did not define *where* the interface was located (*i.e.*, as part of the vending machine or remote from it). The Federal Circuit found that the full scope of the claims, which encompassed the new matter of the CIP application (*i.e.*, a remote user interface), were only supported by the matter added in the CIP application. *Id.* at 1309. Accordingly, the Federal Circuit held that the claims were entitled only to the CIP filing date. *Id.* at 1310.

Here, claims 9 and 23 encompass the new matter added by the 1996 CIP application (*e.g.*, the emergency call routing and the forwarding of location information to a PSAP as shown in Fig. 9B) and, by definition, can only be supported by the 1996 CIP Application. Accordingly,

claims 9 and 23 and the requested dependent claims are entitled, at most, to the 1996 CIP filing date under the binding Federal Circuit precedent of *PowerOasis*.⁸

In a just-issued precedential opinion in *Research Corp. Technologies, Inc. v. Microsoft Corp.*, --- F.3d ----, 2010 U.S. App. LEXIS 24984 (Fed. Cir. Dec. 8, 2010), the Federal Circuit followed the binding precedent of *PowerOasis* in assessing whether parent applications filed in 1990 and 1991 “disclose[d] the elements of [two] later-filed claims.” *Id.* at *22 (citing *PowerOasis*, 522 F.3d at 1306). As the Federal Circuit did in *PowerOasis* – and as Requester respectfully submits should be done here – the Federal Circuit in *Research Corp.* concluded that “claims 4 and 63 of the ‘772 patent are broader than the invention disclosed in the 1990 and 1991 Applications” such that the two later-filed claims were “not entitled to claim the benefit of their parent applications’ filing dates.” *Id.* at *30-31.

The scenario presented in *Research Corp.* is very analogous to the effective filing date issue raised by the '763 Patent and inexorably leads to the same conclusion. As discussed herein, the Applicants for the '763 Patent acknowledged the deficiencies in the 1991 Parent Application when they filed the 1996 CIP Application with a dramatically rewritten specification (including new Fig. 9B) containing “new matter” designed to fill what the Applicants themselves described as the “room for further improvement in the areas of cost, subscriber service, billing and taxing” in the 1991 Parent Application. (See 1996 CIP Application, at 8:14-19; '763 Patent, at 4:27-33.)

⁸ The Examiner in the pending *inter partes* reexamination of the '822 Patent found *PowerOasis* to not be controlling as it dealt with the scope of claims in litigation. (*Inter Partes* Office Action, at 13 (Exh. 16).) *PowerOasis* is *not* asserted for the adoption of litigation constructions in the present reexamination. *PowerOasis* is instead cited for the proper framework for determining whether a CIP claim is supported by a parent application. That framework is neutral as to forum, and this precedential opinion is as binding in the PTO as it is in a federal court. Notably, the Board of Patent Appeals and Interferences (“BPAI”) has cited *PowerOasis* in setting forth the “Principles of Law” that apply in assessing entitlement to an earlier effective filing date in final decisions on appeals of reexamination decisions. See, e.g., *Ex Parte Network Caching Tech., LLC*, No. 2008-4022, 2008 WL 4804017, at *9 (BPAI Oct. 31, 2008).

Similarly, in *Research Corp.*, the Federal Circuit relied upon the applicants' own words (*i.e.*, "the inventors' testimony") to confirm the limitations of the disclosure of the 1990 and 1991 parent applications at issue in that case:

Moreover, the inventors' testimony indicate that they were in possession of only a blue noise mask at the time of filing the 1990 and 1991 Applications. ... Given the inventors' admission that they only described a blue noise mask, a person of ordinary skill would not understand from the 1990 and 1991 Applications that the inventors were in possession of a mask other than the disclosed "blue noise mask."

Id. at *29-30. In a similar manner, the named inventors of the '763 Patent (*i.e.*, the Applicants) admitted that their bare-bones 1991 Parent Application could be improved, and their "improvement" was to add a host of "new matter" to the 1996 CIP Application in an effort to support later-claimed inventions, including the very broad later-filed claims of the '763 Patent. As in *Research Corp.* (and *PowerOasis*), the later-filed claims of the '763 Patent should not be given the undeserved benefit of the much-earlier 1991 effective filing date.

5. The Previous Reexamination Failed to Consider the 1996 CIP Application as to Claims 9 and 23

In the previous reexamination of the '763 Patent, the Examiner found claims 9 and 23 to be supported by the 1991 Parent Application. (Order, at 8.) The Examiner pointed to the disclosure of forwarding location information to a telephone company for claim 9 and the disclosure of location-based billing and taxing for claim 23. (*Id.*) The Director also found that these claims were supported by the 1991 Parent Application. (Decision, at 5-7.) The Director cited the disclosure of routing calls to the most appropriate cell site based on location and using location upon an emergency call to constitute sufficient support. (*Id.*)

Neither analysis, however, took into account that the 1991 Parent Application was followed by a 1996 CIP Application. There is no mention of the 1996 CIP Application in the Order or the Decision. This was a critical omission since the CIP Application makes clear that

the Applicants were aware of the disclosure of forwarding location to a telephone company, location-based billing and taxing, and routing calls to the appropriate cell site in the 1991 Parent Application, but found this disclosure insufficient:

The incorporated material, including the Dennison et al patent [1991 Parent Application] disclose that cell sites sometimes have overlapping coverage due to the aforementioned variations in terrain and environment, and propose a solution. While the proposed solution works well, *there is still room for further improvement in the areas of cost, subscriber service, billing and taxing.* (1996 CIP Application, at 8:14-19 (emphasis added); *see also* '763 Patent, at 4:27-33.)

The Applicants accordingly revamped the disclosure in dramatic fashion to provide these further improvements. For example, the Applicants *deleted Fig. 11A* of the 1991 Parent Application from the body of the 1996 CIP Application and *added new Fig. 9B* to provide disclosure on routing an emergency call and forwarding location information to a PSAP for emergency services. (*See also* Exh. 8 (the redline comparison of the 1996 CIP Application to the 1991 Parent Application).) These newly added features were then claimed through the Applicants' use of broad terms such as "subsequent services" and "location-based services" in the '763 Patent.

This history proves the error of any prior determination that the 1991 Parent Application supports claims 9 and 23. The examples of forwarding location to a telephone company, location-based billing, and taxing and routing calls to the appropriate cell site in the 1991 Parent Application cannot support the full breadth of claims 9 and 23, especially when the Applicants themselves admitted the examples were inadequate. The Applicants added new matter to address the deficiencies of the 1991 Parent Application and this matter is needed to support and enable the full breadth of claims 9 and 23, thereby limiting these claims to, at most, the 1996 CIP filing date.

This conclusion is consistent with the purpose behind § 112, first paragraph. The written description requirement "operates as a timing mechanism to ensure fair play in the presentation

of claims after the original filing date and to guard against manipulation of that process by the patent applicant.” *PowerOasis*, 522 F.3d at 1306 (quotation and citations omitted). This statutory requirement “prevents an inventor from surreptitiously expanding of a patent through successive continuation-in-parts.” *Tronzo v. Biomet Inc.*, 950 F. Supp. 1149, 1155 (S.D. Fla. 1996), *aff’d in part, vacated in part, rev’d in part*, 156 F.3d 1154 (Fed. Cir. 1998). Here, fair play directs claims 9 and 23 to be limited to the 1996 CIP filing date; otherwise the Patent Owner will have surreptitiously expanded the limited disclosure of the 1991 Parent Application with its 1996 CIP Application.

Accordingly, claims 9-15 and 22-32 are entitled, at most, to the 1996 CIP filing date. Claims 1-6 are also only entitled to the 1996 CIP filing date as discussed above in Section A. Thus, as set forth below, the Requester respectfully requests that the Examiner consider the following intervening references for all the requested claims: Richardson, Stilp, Mansell and Salimando.

II. RICHARDSON

A. Brief Overview Of Richardson (GB 2,271,486 A)

Richardson (Exh. 31) was published on April 13, 1994. It thus qualifies as prior art under 35 U.S.C. § 102(b) if the requested claims are not entitled to the 1991 filing date of the Parent Application. Richardson was not considered in the original examination of the '763 Patent or the previous reexamination.

Richardson recognizes the same problem as the '763 Patent. It notes that call management decisions in conventional cellular systems “are based on signal strength and/or signal quality information” but “[u]nfortunately, such a methodology is unable to compensate for surrounding signal aberrations caused by geographic environments[.]” (1:27-35; *see also* 5:21-22; '763 Patent, at 4:17-23.)

To address that problem, Richardson discloses a cellular communication system having base stations 28-42, one or more controllers 44, 46, and one or more mobile units 68, 70 with GPS receivers 80, 82 as illustrated in Figs. 1 and 2 (which are reproduced below):

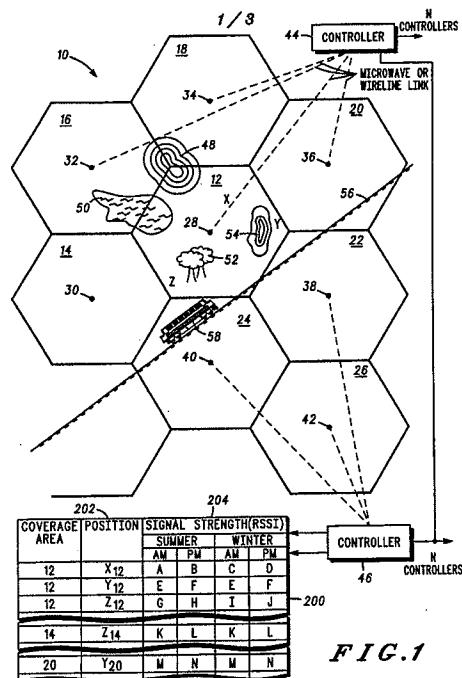


FIG. 1

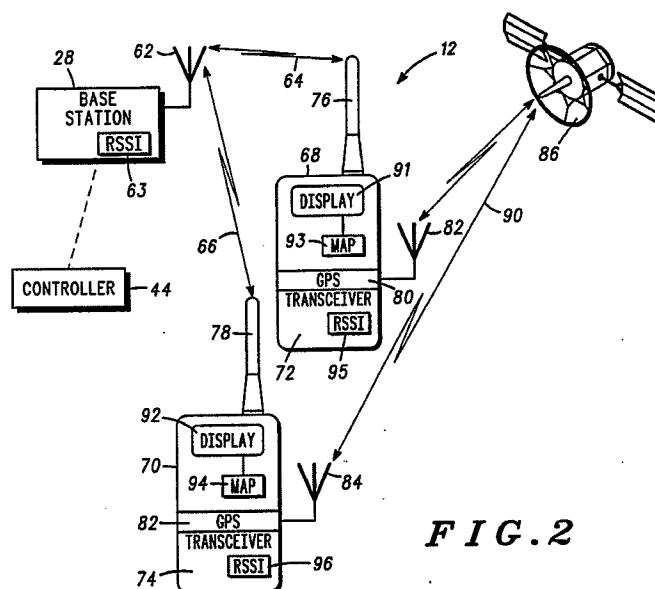
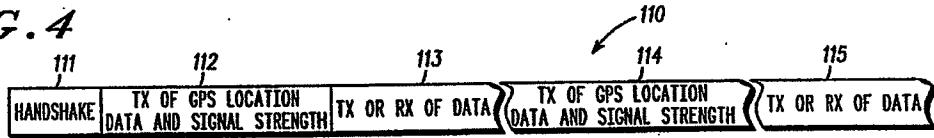


FIG. 2

A mobile unit in Richardson initiates a "handshake" 111 with a base station as illustrated below in Fig. 4. (See 11:34-12:3; see also 1:19-33 and 9:29-33.)

FIG. 4

Once communication is established, the mobile unit provides position information 112 obtained from its GPS receiver to the base station and accompanying controller. (12:3-13.) This can be done repeatedly during the communication. (*Id.*)

The position information is then used by the controller for billing (5:14-22) and call management, such as hand-offs (3:29-32) and channel assignment (16:16-22). (*See, e.g.,* Abstract; 5:14-22; 14:19-24.) Furthermore, position and signal strength information from mobile units are used to populate the database 200 (as shown at the bottom of Fig. 1 of Richardson) to improve overall system management. (2:6-10; 13:1-4.)

B. Substantial New Questions Of Patentability Based On Richardson

With respect to claim 9 and its dependent claims, Richardson discloses the limitation that the PTO found missing in the art of the original examination and the previous reexamination of the '763 Patent, *i.e.*, a "positioning system obtaining a position for said specific mobile unit identifying an exact geographic location of the specific mobile unit, and forwarding said exact geographic location and specific mobile unit identification for use in subsequent services."

Fig. 2 of Richardson discloses mobile units having GPS receivers 80, 82. Each receiver is "for receiving information from a Global Positioning System relating each mobile communications device to a geographic position[.]" (2:23-27.) Richardson discloses that the mobile unit forwards its geographic location to a control center which, in turn, forwards the geographic location to a billing center for use in subsequent services, such as billing and call rating, identified to that mobile unit. (15:31-16:34.) For example, Richardson explains that "the

duration of a call and GPS position information would be brought together at a billing centre, at which point a suitable tariff would be calculated for the call.” (16:4-7; *see also* 5:14-22.)

Richardson also discloses that the forwarded location information can be used to provide services, such as channel assignment and hand-offs, during a call:

[A] mobile unit moving from one geographic area to another may be programmed to automatically change channels, signalling and other parameters/user features, such as keypad functionality, display presentation and receiver scan configuration, i.e. re-configuration of the functionality of the mobile unit, thereby providing fully automatic interoperability with local communication systems. (16:16-22; *see also* 3:29-32 and 14:19-24 (relating to hand-offs).)

With respect to claim 23 and its dependent claims, Richardson discloses the steps that the PTO found missing in the art of the original examination and the previous reexamination of the '763 Patent, *i.e.*, “acquiring positional data corresponding to an exact geographic location for the mobile unit via the cellular communication system,” “comparing the positional data with stored geographic data for the location-based service,” and “responding to the request for a location-based service based on the comparison.” As noted above, the controller or control center acquires the geographic location of the mobile unit. (*See, e.g.*, Fig. 4 (at 112).) The exact geographic location is derived through the receipt of GPS satellite transmissions by the mobile unit as shown in Fig. 2.

The control center compares the acquired position data with its database of stored geographic data (shown at the bottom of Fig. 1). For example, Richardson discloses:

With regard to “hand-off” decisions, the data base 200 would highlight opportunities for better system management. More specifically, if a particular coverage area (cell) is congested with mobile units, control of some of these mobiles may be directed to an adjacent cell capable of handling the additional responsibility thereof. (14:19-24; *see also* 3:29-32.)

Moreover, Richardson discloses a billing center that computes a fee based on the location of the call, thereby inherently comparing the acquired geographic location to a fee location table.

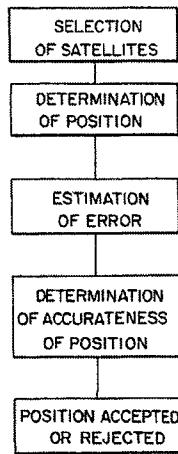
(5:14-22; 16:1-8.) The control center then responds to the request by executing hand-off decisions based on its database analysis or comparison. Similarly, the billing center responds by computing the appropriate fee through its comparison.

These technological teachings of Richardson were not considered in the original examination or the previous reexamination of the '763 Patent, as Richardson was not of record in either proceeding. Thus, Richardson provides new, non-cumulative technological teachings that raise substantial new questions of patentability.

C. Brief Overview Of Karouby (U.S. Patent No. 5,373,298)

Richardson in view of Karouby raises substantial new questions of patentability with respect to claim 1 and its dependent claims. Karouby (Exh. 32) was filed on October 5, 1993. It thus qualifies as prior art under 35 U.S.C. § 102(e) if claims 1-6 are not entitled to the 1991 filing date of the Parent Application (which was what the PTO found during the previous reexamination (Order at 7)). Karouby was not considered in the original examination of the '763 Patent or the previous reexamination.

Karouby is directed to a GPS receiver in a mobile unit that can estimate the error in its position calculation and perform another position calculation if the initially calculated position is inaccurate. (Abstract; Fig. 1.) As shown in Fig. 2 of Karouby (below), the GPS receiver first selects a constellation of satellites and determines the position of the mobile unit based on that constellation; the error in the position is then calculated. (*See also* 3:13-4:2.)

FIG.2

As also shown in Fig. 2 of Karouby, the value of that error is then compared to a threshold to determine the *accuracy* of the position. (*See also* 4:9-15.) If the error is greater than the threshold, the GPS receiver responds to the inaccuracy by selecting other constellations until a calculated position meets the required accuracy. (*See also* 6:57-64.)

D. Substantial New Questions Of Patentability Based On Richardson In View Of Karouby

Richardson in combination with Karouby discloses the very limitation that the PTO found missing in the art of the original examination and previous reexamination with respect to claim 1, *i.e.*, “an updating system responsive to an inaccuracy in the geographic location associated with a mobile unit identification number that exceeds an interval defined by said updating system.”

Richardson discloses that “[l]ocation information, *periodically* derived from GPS satellite transmissions (86, 88, 89), is used by the mobile units 68, 70[.]” (11:13-15 (emphasis added); *see also* Fig. 1 (database showing positions X12, Y12, Z12, *etc.* for coverage area 12).) Such updating would have been responsive to an inaccuracy in view of Karouby’s disclosure of error estimation for a conventional GPS receiver.

As shown in Fig. 2 of Karouby, the GPS receiver first determines the position of the mobile unit based on a selected constellation of satellites and calculates the error in the position. (*See also* 3:13-4:2.) The error value is then compared to a threshold to determine the *accuracy* of the position. (*See also* 4:9-15.) If the error is greater than the threshold, the GPS receiver responds to the inaccuracy by selecting other constellations until a calculated position meets the required accuracy. (*See also* 6:57-64.) Such a GPS receiver in Richardson would allow the mobile unit to send an accurate position to the controller, thereby ensuring that the controller's database itself is accurate. (*See* Richardson, at 12:23-25 ("[t]he regular transmission of GPS data from the mobile units to a controller, via a base station, is used to compile a *precise* data base of system coverage.") (emphasis added).)

E. Detailed Proposed Rejections Based On Richardson As Well As Richardson And Karouby

The Requester respectfully submits the following proposed rejections, which are detailed in the accompanying claim charts:

1. Claims 1-6 are obvious under § 103(a) in view of Richardson and Karouby. (Exh. 33.)
2. Claims 9-13 and 19-32 are anticipated under § 102(b) by Richardson. (Exh. 34.)

III. STILP

A. Brief Overview Of Stilp (U.S. Patent No. 5,327,114)

Stilp (Exh. 35) was filed on May 7, 1993, and issued on July 5, 1994. It thus qualifies as prior art under either 35 U.S.C. § 102(e) or § 102(b) if the requested claims of the '763 Patent are not entitled to the 1991 filing date of the Parent Application (which was what the PTO found

during the previous reexamination (Order at 7)). Stilp was considered during the original examination of the '763 Patent, but it was not discussed or applied to the requested claims.

Stilp discloses a cellular communication system that determines the location of cellular telephone for various services, including billing, emergency services, and an alarm function. Fig. 2 (below) illustrates that the system comprises a network of cell sites (12a, 12b, etc.), a plurality of cellular telephones (10a, 10b), and a central site 16:

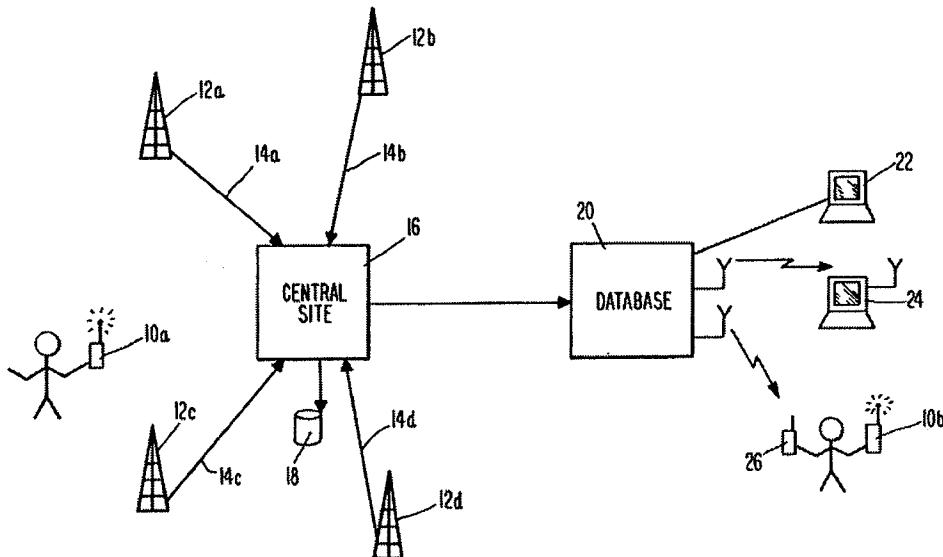


Fig. 2

The central site 16 described in Stilp obtains the arrival time at various cell sites of control communications from a cellular telephone. (*See, e.g.,* 13:33-62; Fig. 7.) Based on the time differences of arrival (TDOA) among the cell sites, the central station determines the location of the cellular telephone. (*Id.*) Indeed, Stilp discloses determining the latitude and longitude of the cellular telephone to within an accuracy of 0.0001 degrees. (6:41-7:5; Figs. 8C and 8D.)

The central site 16 streams the determined location information with identification information of the cellular telephone to a database 20 shown in Fig. 2. (*See, e.g.,* 8:30-34.) Stilp

discloses that the stored location information can be used to provide a number of services, such as billing, emergency services during a 911 call and an alarm function:

Embodiments of the invention may also advantageously include means for merging the location data with billing data for the cellular telephones and generating modified billing data. . . . For example, the system may apply a lower billing rate for telephone calls made from a user's home or office or other geographic locale.

With this capability, emergency assistance may be provided to a user in distress. For example, when a user dials "911" the system would automatically tell an emergency dispatcher the user's location.

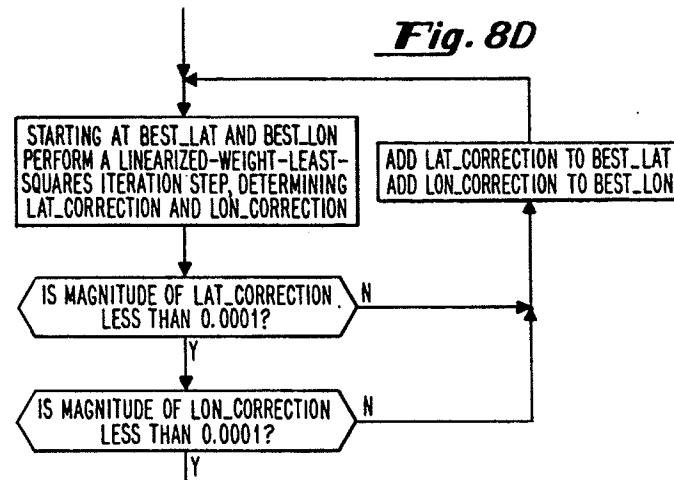
Another element of a preferred embodiment is a means for comparing the current location of a given telephone with a prescribed range of locations and indicating an alarm condition when the current location is not within the prescribed range. Such an element could be used, for example, to notify a parent when the child, who borrowed the parent's car and cellular telephone to "go to the mall," has in fact gone somewhere else. Of course, many other applications of such an alarm function are possible. (5:44-6:12.)

B. Substantial New Questions Of Patentability Based On Stilp

With respect to claim 1 and its dependent claims, Stilp teaches the very limitation that the PTO found missing in the art of the original examination and the previous reexamination of the '763 Patent. The central site 16 periodically updates the geographic location of the cellular telephone. (*See, e.g.*, 19:11-14 ("As depicted in FIG. 9, a location tape, containing a record over time of the locations of the subscribers' cellular telephones . . ."); 8:30-41.)

Unlike the previously considered art that the PTO found to merely update location at intervals, Stilp further discloses checking the accuracy of the location information. The location is first determined by comparing the differences in times of arrival for control channel communications to theoretical values of time delays by a "least squares" analysis to determine the "best" latitude and longitude of the cellular telephone. (6:56-68; 16:26-51; Fig. 8C.) The central site loops through a second weighted least squares analysis to correct the best latitude and longitude coordinates until they are accurate to within 0.0001 degrees latitude or longitude as

shown in Fig. 8D below. (*See also* 6:68-7:5; 16:51-59; Fig. 8E.) Once the best latitude and longitude coordinates are determined to be accurate, the updated coordinates are stored in the central site and database for performing services. (8:30-34; 14:2-5; Fig. 7.)



Stilp discloses the limitation that the PTO found missing in the art of the original examination and previous reexamination for claim 9 and its dependent claims. As noted immediately above, the central site 16 obtains the “exact geographic location” of the cellular telephone to within “0.0001” degrees latitude and longitude based on the differences in times of arrival for control channel communications between the cellular telephone and cell sites. (6:41-7:5; Figs. 8C and 8D.) Stilp discloses forwarding the identification of the telephone (8:30-34) and its “exact geographic location” information for billing (5:44-55; Figs. 7 and 9), for emergency services during an emergency call (5:63-6:2), and for an alarm function based on the location of the cellular telephone (6:3-12). Thus, Stilp discloses the limitation that the PTO found missing in the art: a “positioning system obtaining a position for said specific mobile unit identifying an exact geographic location of the specific mobile unit, and forwarding said exact geographic location and specific mobile unit identification for use in subsequent services.”

As explained below, Stilp also discloses the steps of claim 23 and its dependent claims that the PTO found missing in the art of the original examination and previous reexamination of the '763 Patent. Initially, Stilp discloses that the central site 16 acquires the exact geographic location of the cellular telephone to within "0.0001" degrees latitude and longitude based on the differences in times of arrival for control channel communications between a cellular telephone and cell sites. (6:41-7:5; Figs. 8C and 8D.) Stilp also discloses comparing the position data of the cellular telephone with stored geographic data to determine whether the cellular telephone is located within a specified range of locations:

Further, the invention may be employed in connection with an alarm service. In this application, a means is provided for comparing the current location of a given telephone with a specified range of locations and indicating an alarm condition when the current location is not within the prescribed range. (19:30-35.)

Moreover, for billing, the position data of the cellular telephone in Stilp is compared to stored geographic data (*e.g.*, the user's home and office locations) to obtain the modified billing data:

In this embodiment, the billing data indicates the cost for each telephone call made by the cellular telephones within a certain time period, the cost being based upon one or more predetermined billing rates, and the modified billing data is based upon a different rate for calls made from one or more prescribed locations. For example, the system may apply a lower billing rate for telephone calls made from a user's home or office or other geographic locale. (5:47-55.)

Finally, Stilp discloses responding to a request for the location-based service based on the comparison discussed above, *e.g.*, the initiation of an alarm:

Such an element could be used, for example, to notify a parent when the child, who borrowed the parent's car and cellular telephone to "go to the mall," has in fact gone somewhere else. (6:7-10.)

In addition, modified billing data can be generated based on the above comparison and emergency services can be provided during an emergency call. (5:44-55; 5:68-6:2; 19:24-29.)

These technological teachings of Stilp were not considered in the original examination or the previous reexamination of the '763 Patent, as Stilp was not discussed or applied in either

proceeding. Thus, Stilp provides new, non-cumulative technological teachings that raise substantial new questions of patentability.

C. Detailed Proposed Rejections Based On Stilp

The Requester respectfully submits the following proposed rejections based on Stilp, which are detailed in the accompanying claim chart:

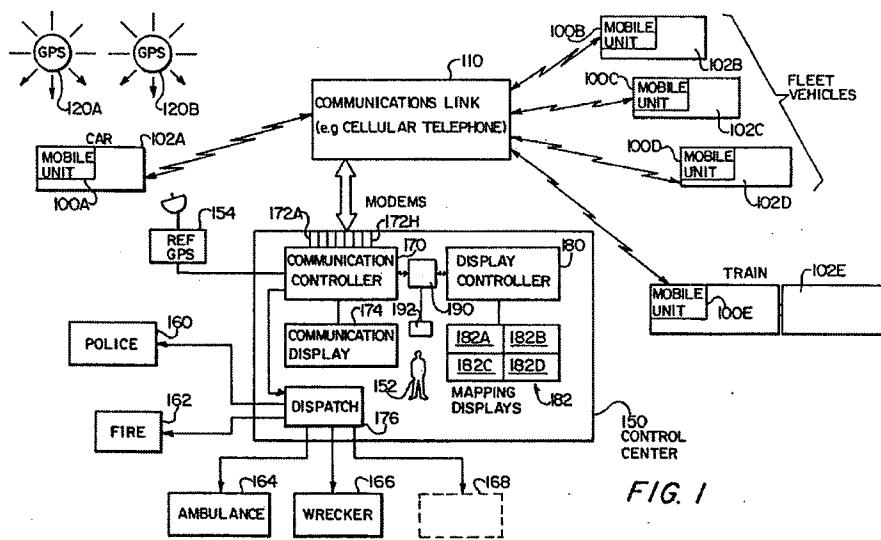
1. Claims 1-6, 9, 20-23, 26-28, 31 and 32 are anticipated under § 102(e) by Stilp. (Exh. 36.)

IV. MANSELL

A. Brief Overview Of Mansell (U.S. Patent No. 5,223,844)

Mansell (Exh. 37) was filed on April 17, 1992, and issued on June 29, 1993. It thus qualifies as prior art under either 35 U.S.C. § 102(e) or § 102(b) if the requested claims of the '763 Patent are not entitled to the 1991 filing date of the Parent Application. Mansell was considered during the original examination of the '763 Patent, but it was not discussed or applied to the requested claims.

Mansell is directed to a vehicle tracking and security system, as illustrated in Fig. 1 below:



The system includes a plurality of vehicles 102A-E having a plurality of mobile units 100A-E. (6:54-57.) A mobile unit, such as 100A, can detect certain status and alarm conditions (such as a window break) in vehicle 102A. (6:61-66.) The mobile unit then communicates this information to a Control Center 150 via a communications link 110 employing cellular communications. (7:13-16.) The mobile unit also provides GPS-derived positioning data to the Control Center. (7:20-26; *see also* Fig. 8A (at 1310 and 1312).) The received information is displayed on maps at the Control Center, and the Control Center can then dispatch emergency services (such as police 160) to the identified location. (8:34-46.)

B. Substantial New Questions Of Patentability Based On Mansell

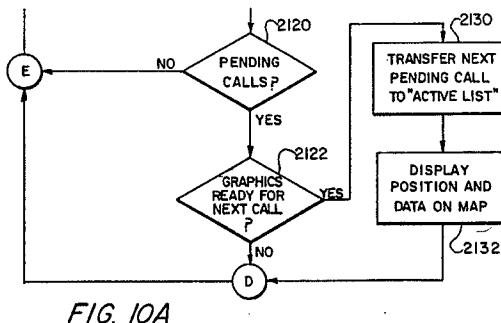
With respect to claim 9 and its dependent claims, Mansell discloses the limitation that the PTO found missing in the art of the original examination and the previous reexamination of the '763 Patent, *i.e.*, a “positioning system obtaining a position for said specific mobile unit identifying an exact geographic location of the specific mobile unit, and forwarding said exact geographic location and specific mobile unit identification for use in subsequent services.”

Mansell discloses a mobile unit having a GPS receiver for obtaining its position. (*See, e.g.*, Fig. 2A at bottom (314); *see also* 7:19-8:6.) The position data determined via the GPS receiver is forwarded with identification to the Control Center through the cellular communication system. (*See, e.g.*, 6:61-68; Fig. 15 (displaying mobile unit ID).) The forwarded information can be used for services, including emergency services such as summoning emergency vehicles or disabling the vehicle during the call:

[T]he invention is a multi-featured electronic tracking and security system which includes devices that calculate a vehicle's position, detect local events, and calculate a system response based on weighted variables. . . . In certain circumstances, the system notifies a Control Center via a preferably two-way communication channel, to allow the Control Center to respond appropriately such as by summoning emergency vehicles or remotely controlling the vehicle in some way. (6:26-36; *see also* 11:58-65.)

With respect to claim 23 and its dependent claims, Mansell discloses the steps that the PTO found missing in the art of the original examination and the previous reexamination of the '763 Patent, *i.e.*, “acquiring positional data corresponding to an exact geographic location for the mobile unit via the cellular communication system,” “comparing the positional data with stored geographic data for the location-based service,” and “responding to the request for a location-based service based on the comparison.”

In Mansell, the position data determined via the mobile unit’s GPS receiver is acquired by the Control Center through the cellular communication system. (*See, e.g.*, 6:61-68.) The position data acquired is then compared to the stored geographic data of the mapping program. This is illustrated as step 2132 in Fig. 10A (below) and graphically demonstrated in at least Figs. 14 and 17 of Mansell. (*See also* 4:11-39; 8:28-39.) The Control Center then responds by providing emergency services. (6:26-36.)



Furthermore, the mobile unit of the vehicle continuously updates its position to the Control Center. (*See, e.g.*, 2:46-51 (“[T]he present invention provides continuous monitoring of a large number of vehicles for a broad range of status and emergency conditions over a virtually unlimited geographic area[.]”); *see also* Fig. 8A; 22:10-15.) These updates are compared to previously stored positions of the vehicle to provide another service, *e.g.*, disabling the vehicle at a given location based through real-time tracking. (6:26-36; 11:58-65; Fig. 8B (at 1340).)

These technological teachings of Mansell were not considered in the original examination or the previous reexamination of the '763 Patent, as Mansell was not discussed or applied in either proceeding. Thus, Mansell provides new, non-cumulative technological teachings that raise substantial new questions of patentability.

C. Detailed Proposed Rejections Based On Mansell

The Requester respectfully submits the following proposed rejections based on Mansell, which are detailed in the accompanying claim charts:

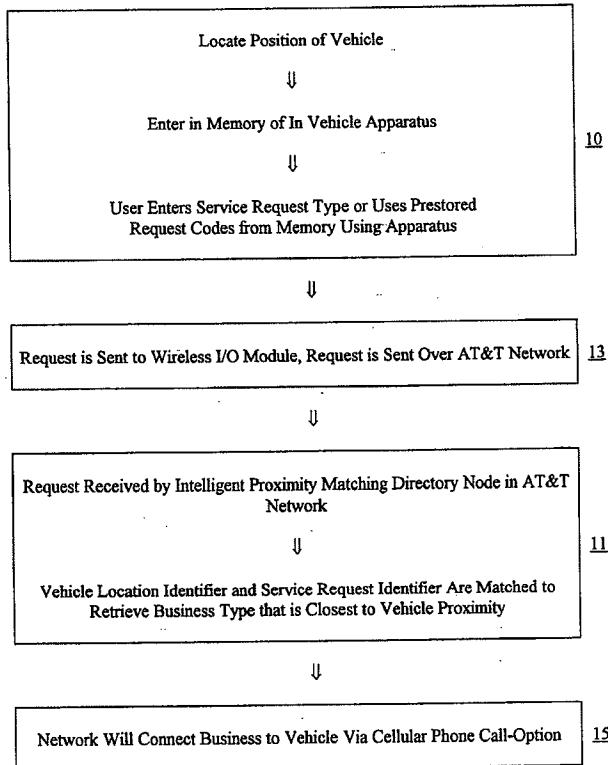
1. Claims 9-15 and 19-22 are obvious under § 103(a) in view of Mansell and the Admitted Prior Art. (Exh. 38.)
2. Claims 23-32 are anticipated under § 102(b) by Mansell. (Exh. 39.)
3. Claims 29-31 are obvious under § 103(a) in view of Mansell. (Exh. 40.)

V. SALIMANDO

A. Brief Overview Of Salimando (U.S. Patent No. 5,561,704)

Salimando (Exh. 41) was filed on March 16, 1994. It qualifies as prior art under § 102(e) if the requested claims of the '763 Patent are not entitled to the 1991 filing date of the Parent Application. Salimando was not considered in the original examination or the previous reexamination of the '763 Patent.

Salimando is directed to the situation when “a person or caller in a mobile vehicle” needs “to obtain merchandise, assistance or aid promptly and in an unfamiliar area.” (1:11-13.) To address this situation, Salimando discloses a method, as illustrated in Fig. 1 (below), in which a caller in the mobile vehicle obtains his location via GPS or triangulation. (2:40-43; Fig. 1 at block 10.) The information is then transmitted with a service request (*e.g.*, “road-side assistance”) to a central station. (Fig. 1 at blocks 10 and 13; *see also* 3:48-59.)



The central station disclosed by Salimando has a database of service providers with their telephone numbers and locations. (3:28-32.) Based on the vehicle location of the identified caller and the service request, the database matches the appropriate service provider and routes the caller to the service provider. (Fig. 1 at blocks 11 and 15.)

B. Substantial New Questions Of Patentability Based On Salimando

Salimando discloses the limitation that the PTO found missing in the art of the original examination and previous reexamination for claim 9 and its dependent claims. It discloses utilizing a GPS positioning system for obtaining the mobile unit's geographic location: "In block 10, the remote user's geographic location (see latitude and longitude of FIG. 2(A)) is determined, for example, by triangulation or via the Global Positioning system (GPS)." (2:40-43; *see also* 3:16-20.) The obtained position information is forwarded with the mobile unit's service request (*e.g.*, road side assistance) to a central station. (Fig. 1 at blocks 10, 11 and 13;

see also 2:43-48; Figs. 2(A) and 2(C).) This forwarded information is used to provide services during the service request call:

A caller remote from the central station determines his location and transmits such location and his need or requirement to the central station either by wireless or cable, preferably by way of a toll free number, and the central station selects a matching or suitable provider and connects the caller by way of the telephone channel and computer outputted number to the selected provider. (1:59-65.)

The providers provide services such as gas, food and roadside assistance. (*See, e.g.*, Fig. 2(C).)

Salimando also discloses the steps of claim 23 and its dependent claims that the PTO found missing in the art of the original examination and previous reexamination of the '763 Patent. Salimando discloses that the position of the mobile unit is determined by either triangulation or GPS satellites and then acquired by the central station via the cellular communication system. (*See, e.g.*, 3:16-27.) The central station compares the location of the mobile unit and the requested service to a database of various service providers to find an appropriate match based on location:

The caller transmitted data of location and requested service is inputted into the retrieval network which outputs the telephone number of a provider of the specified classification and at a location as close as available to the caller's location. (3:32-36; *see also* 1:52-67; Fig. 1 (at 11).)

Salimando discloses responding to the service request from the mobile unit by routing the communication to the service provider with the appropriate service and location. (*See, e.g.* 1:59-67; 3:32-39; Fig. 1 (at 15).)

These technological teachings of Salimando were not considered in the original examination or the previous reexamination of the '763 Patent, as Salimando was not considered in either proceeding. Thus, Salimando provides new, non-cumulative technological teachings that raise substantial new questions of patentability.

C. Detailed Proposed Rejections Based On Salimando

The Requester respectfully submits the following proposed rejections based on Salimando, which are detailed in the accompanying claim charts:

1. Claims 9-15 and 19-22 are obvious under § 103(a) in view of Salimando and the Admitted Prior Art. (Exh. 42.)
2. Claims 23-25 and 28-31 are anticipated under § 102(e) by Salimando. (Exh. 43.)
3. Claims 29 and 31 are obvious under § 103(a) in view of Salimando. (Exh. 44.)

PART 5

I. CERTIFICATION AND STATEMENT PURSUANT TO 37 C.F.R. § 1.915

The Requester hereby certifies that the estoppel provisions of 37 C.F.R. § 1.907 do not prohibit this request for *inter partes* reexamination as required under 37 C.F.R. § 1.915(b)(7).

Pursuant to 37 C.F.R. § 1.915(b)(8), the real party in interest is the Requester, Cellco Partnership (d/b/a Verizon Wireless).

II. CONCLUSION

For the reasons set forth above, the Requester respectfully requests reexamination of claims 1-6, 9-15 and 19-32 of the '763 Patent.

In the unlikely event that the transmittal letter is separated from this document and the Patent Office determines that relief is required, the Requester petitions for any required relief and authorizes the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to **Deposit Account No. 03-1952** referencing docket no. **554002800100**.

Dated: December 14, 2010

Respectfully submitted:



Mehran Arjomand

Reg. No. 48,231

MORRISON & FOERSTER LLP

555 West Fifth Street, Suite 3500

Los Angeles, California 90013

(213) 892-5630

ATTORNEY FOR REQUESTER

CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. § 1.915(b)(6), the undersigned, on behalf of the Requester, hereby certifies that a copy of each of the following documents:

1. Request for *Inter Partes* Reexamination Transmittal Form (3 pages);
2. U.S. Patent No. 7,289,763 B2;
3. Information Disclosure Statement listing 7 U.S. patents, 2 foreign patent documents and 1 non-patent literature on a substitute for form 1449/PTO (1 page) and a copy of the foreign patent documents and non-patent literature;
4. The attached Detailed Request (79 pages, including this certificate, the cover page and the table of contents); and
5. Exhibit Transmittal (3 pages) and accompanying Exhibits 1-44

was served on the patent owner at the following address: FIALA & WEAVER, P.L.L.C., C/O CPA GLOBAL, P.O. Box 52050, Minneapolis, MN 55402 provided for in § 1.33(c) via first class mail on December 14, 2010.



Mehran Arjomand